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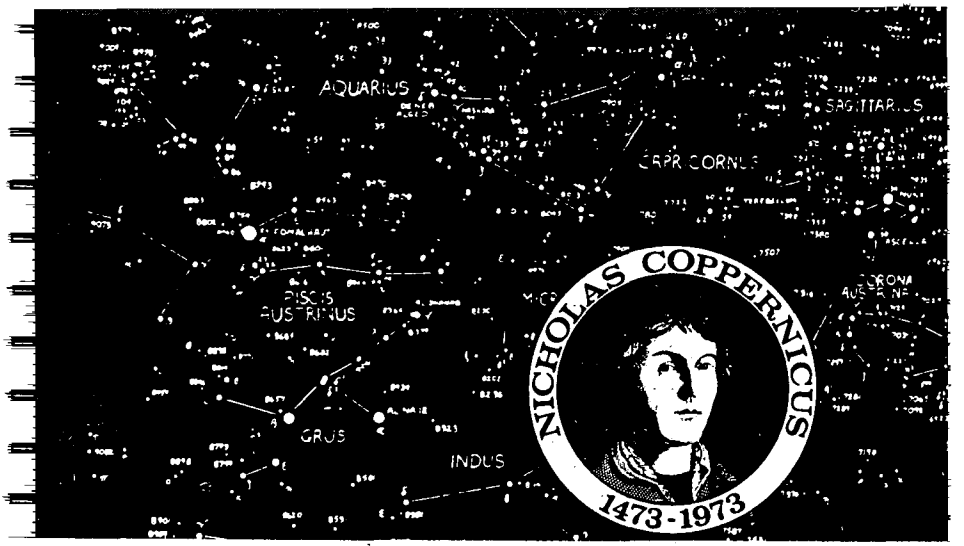

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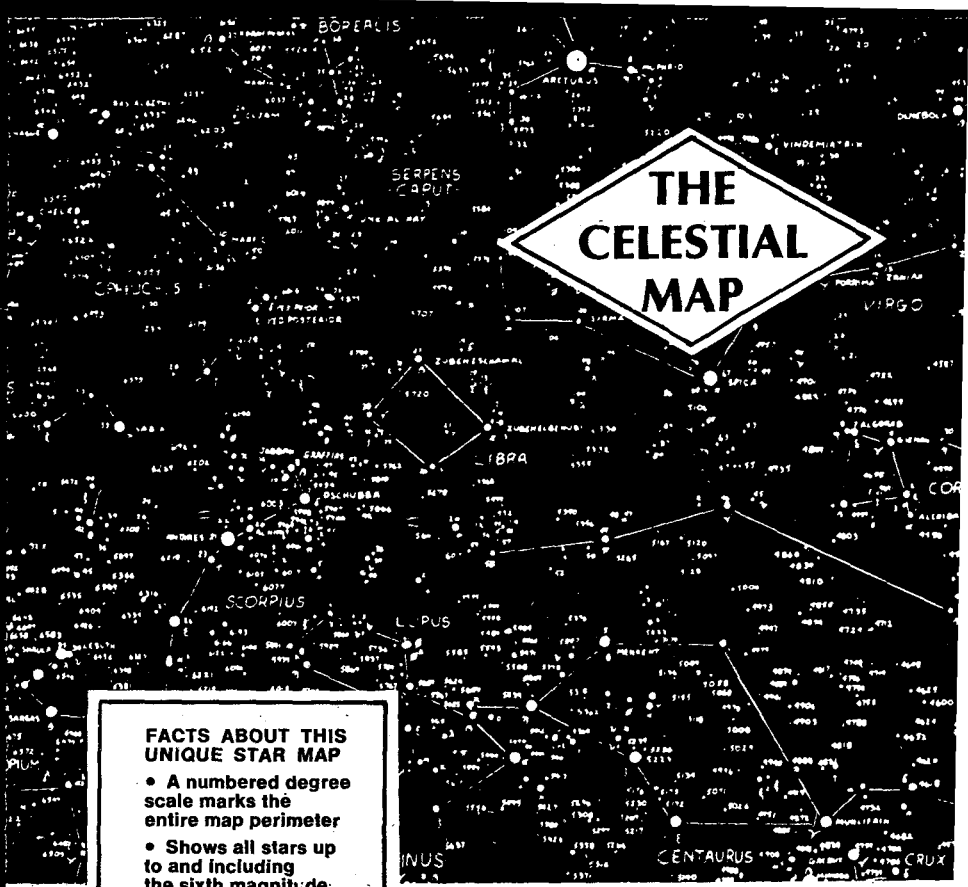

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NOVELETTE

THINK ONLY THIS OF ME

Earth basked in her mellow yesterdays beneath stars ablaze with tomorrows. But Diana wanted love today . . .

MICHAEL KURLAND

I

I MET her in Anno Domini and was charmed. The Seventeenth Century it was. Two weeks and three centuries later we were in love.

Her name: Diana Seven; my name: Christopher Charles Mar d'Earth. Both of old stock, or so I thought; both certainly of Earth; both certainly human, for what that might mean in this galactic day. She was young, how young I did not know, and I was gracefully middle-yeared for an immortal. I would not see my first century again, but I would be a long time yet in my second. I looked

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to be somewhen around forty, normal span; she looked an unretouched twenty, except in motion when she looked barely teen and also ageless.

Anno Domini was my first pause in twenty years. I legislate in the Senior Chamber of the Parliament of Stars. We tend to feel, we beings of the Senior Chamber, that our efforts bind the intelligences of the galaxy together, for all that races still aggress and habited planets are still fused in anger. We also feel that, despite all our posturing, blustering and rhetoric, we accomplish nothing save the passage of time, for all that beings have not starved, races have not been destroyed and planets have not turned to stars through our efforts. This dichotomy slowly erodes empathy, emotion and intellect.

So I paused. I returned to Sol to become again a man of Earth, an Earthman, and walk among trees and down narrow, twisting streets and wide boulevards—but mainly to walk among the men and women of Earth, who are my constituency, my ancestry and my soul. The races of man are varied and the farther one gets from Sol the greater the variation, though all are men and can interbreed and trace their language back to a common source—if they still have sex, if they still have language. But I no more represent the Autocracy or the Diggers of Melvic than I speak for the Denzii Hive or the unfortunate Urechis of Mol.

I felt a need for history: to be one with Earth is to be a part of the sequence of man, a product of all that has come before and a precursor to all that will follow. To return to Sol, to Earth, to man, to our common history: that was my plan.

I spent the first month in the present, walking, looking, visiting, remembering—chronolizing myself to the fashions, mores, idiom and art of this most volatile of planetary cultures. Then I retreated to Earth itself, to the past, to Anno Domini, the religious years: twenty-four centuries called after the Son of the One God. The period right before what we call the present era, when man no longer needs any god but himself.

Earth is now all past: the present comes no closer than Earth's satellite, the moon; the future—I wonder at times, what future a planet can have when it has renounced the present.

I picked Seventeen to start and was garbed and armed and primed and screened and out before I could say, *All the world's a stage/And all the men and women merely players/ They have their exits and their entrances . . .*

The town was London and the year was sixteen-whatever. In this recreated past the years sometimes slip and events anachron—a fact of interest but to scholars and pickers of nit. The costumes of our recreated century were exotic, but no more than the smell. Charles had been beheaded a few years before. The Roundheads had been in power for however long the Roundheads were in power and now William the

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Orange was about to land at Plymouth Dock.

I was sitting in the Mermaid Tavern, at a small table at the rear. Next to me, over my left shoulder, was a large round table where Ben Jonson sat deep in conversation with Will Shakspere, John Milton, Edmond Waller and the Earl of Someplace. As writers will when alone together, they were discussing money and I quickly tired of their talk.

SHE walked in as I was preparing to leave. Walked? She danced with the unassuming grace of windblown leaves. She flowed across the walk and quickstepped through the door as though directed by a master choreographer and rehearsed a dozen times before this take. These are the images that came to mind as she appeared in the doorway.

I sat back down and watched as she came in. She was aware of everything and interested in all that she could see, and the very air around her was vibrant with the excitement of her life. And so I was attracted and excited and aware before a word had passed between us.

A man too doltish to see what she was stood by the door as she passed. He thought she was something other, and he spoke to her so: "Hey, girl—hey, wench, you should not be alone. Perhaps I'll keep you company if you ask me pretty."

She did not reply. She did not seem to hear, but passed him by as if he were a wall.

He reached out to grab her by the shoulder and I stood up, my hand falling to the handle of my walking stick.

She spun almost before his hand had touched her. She reached out, her fingers appearing almost but not quite to reach his neck. He fell away and she continued the pirouette and came inside without further pause.

I must have stood like stone, frozen in my foolish-heroic pose with half-aimed stick. She smiled at me. "No need," she said. "Thank you."

I stammered at her some wish that she share my table and she nodded, sat and smiled again, introduced herself as Diana and looked about. She was also, I decided, a visitor to this recreated Seventeen. I pointed out to her the round table next to us and its famous occupants, indicating each one with almost the pride of a creator, as though I had done something clever merely to be sitting next to them. Diana was interested, but not awed.

The sound of fifes came at us from a distance. A far rumble soon became the beat of many drums. The entourage of William approached and we all went outside the tavern to join the patient mob that awaited his passing.

First the soldiers, row on row, and for a long time nothing passed but soldiers. Then soldiers astride horses. Then soldiers astride horses pulling small cannon. Then a military band. Then more horses with soldiers astride, but now the uniform had changed. Then a coach and the crowd went wild—but it was the wrong coach. By now, unless he were

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twelve feet tall, the new king was an anticlimax. I looked over the crowd and tried to tell which were residents and which were guests of Anno Domini. I couldn't.

If this were the real Seventeenth Century—that is, if it were historical past rather than Anno Dominical recreation—there would be signs. The pox would have left its mark on most who lived. Rickets would be common. War cripples would be begging from every street corner. This Seventeenth Century, the only one the residents knew, was being redone by a benevolent hand.

The new king passed. His coach was open and he smiled and nodded and waved and was cheered. A stout, red-faced little man—anticlimax. I laughed.

We left then, Diana and I, and I offered to walk her to her inn. She named it and I discovered it was my own.

"How do you like this time?" I asked her as we walked. "Have you been here long?"

"All day," she said. "Then you're a guest too? I wondered why you were the only one in the tavern I hadn't heard of."

"Thanks," I said. "In realtime I am well known. My return to Earth was mentioned as primary news. I am a third of Earth's voice in the Parliament of the Stars. I am known and welcome in half a thousand worlds throughout the galaxy. I number some fifty life forms among my friends. It is not necessary that you have heard of me."

"You're insulted!" she said, clapping her hands together. "How delightful! Now you make me feel important, that my words could insult one as essential as you. I thank you for feeling insulted. I am pleased."

I hadn't thought of it that way, ever before. Somehow she made me glad that I had felt insulted. It was nice to be insulted for her: it made her happy. She reminded me of a beautiful half-grown kitten, newly exploring the world outside its kitten box.

THE inn was a U-shaped structure around a central courtyard. The stables were to the right, the rooms to the left and the common room straight ahead. It had been called The Buckingham the last time I was there, some thirty years before. Now, after a decade of being the Pym & Thistle, it sported a new signboard over the door: The Two Roses. The device showed a red and a white rose thoroughly entwined. The landlord I didn't remember—a small, chubby man with a wide smile carved into his unhappy face. I asked him what the new name signified.

"It signifies I'm tired of changing the name of my inn," he told me. "I'm becoming nonpolitical. York and Lancaster settled their differences quite a ways back."

"Let us hope William doesn't think it means you prefer the white and red to his orange," I suggested. He looked after me strangely as I

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escorted Diana across to the common room and we sat at a table in the corner.

"Dinner?" I suggested.

Diana nodded enthusiastically, spilling her red hair around her face. "Meat!" she said. "Great gobs of rare roast—and maybe a potato."

"I—uh—I think they boil their meat these days," I told her in jest.

"No!" She was horrified. "Boil perfectly good, unresisting roasts and steaks? That's barbaric."

"O tempora, o mores!" I agreed, wondering what my accent would have sounded like to Marcus Tullius.

Diana looked puzzled. I tried again, slanting the accents in a different direction. She looked more puzzled.

"It means: 'Oh, what times—oh, what customs!' It's Latin," I told her.

"It's what?"

"Latin. That's a pre-language. Ancient and dead." Now I was puzzled. Who was this girl of Earth who didn't know of Latin? For the past four hundred years, since humanity had begun trying to recreate its cradle—or at least its nursery—all born of Earth, except those born on Earth, knew something of prehistory and the pre-languages: the times and the tongues of man before he met the stars.

"You know what tongue was spoken here?" I asked her.

"Common," she said, looking at me as if I had just asked if she knew what those five slender tubes at the end of her hand were called. "The language of Earth. The one standard language of humans throughout the Galaxy."

"I mean," I explained, "what language was spoken in the real Seventeenth Century London? What language all that beautiful poetry we heard discussed in the tavern by those great names at the next table was translated from?"

She shook her head. "I hadn't thought—"

"English," I said.

"Oh. Of course. England—English. How silly!"

The servitor approached the table circumspectly, waiting until he was sure we had finished speaking before addressing us. "Evening m'lord, m'lady," he mumbled. "Roseguddenit. Venice impizenizeto."

Diana giggled. "English?" she asked. "Have we really receded in time?"

"In time for what?"

Diana giggled again. The thin lad in the servitor's apron looked puzzled, unhappy, frightened and resigned.

"Would you go over that again?" I asked him.

"Parme?"

"What you said, lad. Go over it again for diction, please."

Now he was also nervous and upset and clearly blamed me. "My lord?"

"Speak more slowly," I told him, "and pronounce more carefully and, those of us without your quick wit and ready mind will be able to comprehend. Yes?"

"Yes, my lord." If he could have

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killed me . . . "Sorry, my lord. The roast is good tonight, my lord. The venison pie is very nice, my lord. My lady. What may I serve you?"

"Roast!" Diana stated. "Thick slices of roast. You don't boil your roast, do you? You wouldn't do that?"

The boy nervously replied that he wouldn't think of it, heard my order, then removed himself like a blown candle flame, leaving not even an after-image.

"You frighten people," Diana told me.

"It's my most valued ability," I said. "I shall not frighten you."

"You certainly shall not," she agreed. "My teachers were all more menacing than you—and more unforgiving. And they didn't notice my body."

I ignored the last part of her remark and stared into her blue eyes. "You went to an unpermissive school," I said, smiling.

"The universe is unpermissive," she said seriously. It was a learned response and I wondered who had taught it and why.

The innkeeper approached us during dessert. "Good?" he asked. "You enjoyed?"

"Indeed," I assured him.

"My pleasure," he nodded. "My guests. There will be no reckoning."

"Gracious of you, sir," Diana said.

"Why?" I asked, being wiser and therefore trustless of hostels.

"I am taking your suggestion," he told me. "And I thank you by feeding you dinner."

"Suggestion?"

"Yes. I am changing the name of the inn. Henceforth it shall be known as The Two Roses and the Tulip. I have sent a boy to notify the sign-painter."

II

WE WALKED into the night, Diana and I. Hand in hand we walked, although it was conversation and not love that bound us then. We contrasted: she bright and quick, with an aim as true as a hawk's; I ponderous and sure as a great bear (I metaphor our speech only). We learned from each other. I arrayed my vast store of facts before her in the patterns dictated by the logic of my decades—she swooped and plucked out one here, another there, and presented them as jewels to be examined for themselves, or changed their position to create the fabric of a new logic.

"These people," she asked me, waving a hand to indicate the residents in the houses around us, "what do they feel? What do they think? They are human, yes? How can they just spend their lives pretending they're Anno Domini?"

"They're not pretending," I told her.

"But this *isn't* the Seventeenth Century."

"For them it is. They know of nothing else. Weren't you warned about postchronic talk while you're here?"

"I thought it was just not to spoil

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the—the—flavor. They *don't know?*"

"Truth."

"But that's cruel—unfair!"

"Why? They're stuck in their lives just as you and I are imbedded in our own. Are we any less actors in someone else's drama than they?"

"Philosophy, like religion, is a very useful drug," she didacted, "but it should be used only to condone the evils we cannot control—and not those we create."

"You're quoting," I guessed.

"My most valued ability," she agreed. "I have a memory like a wideband slow-crystal—the input can't be erased without destructing the device. Do you condone this make-believe?"

"It isn't make-believe. And convince me that it's evil."

"But it's so limited—"

"They have the whole world. Their world—the world of the Seventeenth."

"They don't—not in any real sense. This whole area can't be bigger than—than—"

She looked to me for help. I shrugged. "I don't know either. But however large it is, it's also—in a very real sense—unbounded. How much can a man expect to see in one normal lifetime—especially limited to horses and sailing ships for transportation? Any of these people who wish to go to France or the New World will get there. Aided by Anno Domini, they will arrive in their France without noticing whatever odd maneuvering the ship does in the 'Channel'. I've taken that trip."

Ballantine Books

On the top of the science-fiction list this month is DYING INSIDE, Robert Silverberg's big new novel. If you think you may have heard the title before, you're right! A year and something ago, the book was serialized in *Galaxy*, much to everyone's delight.

The *Chicago Daily News* says the book is " . . .a fascinating speculative novel on the theme of telepathy." Buy it! You'll want a copy for your sf shelf of books to read and read again.

When Silverberg is not writing (and/or lolling about in his swimming pool, soaking up the California sun), he's editing memorable anthologies. And this month he has on tap ALPHA 4, the newest in his superb series.

Collected in this volume are classic stories by Aldiss, Bester, Blish, Carr, Disch, Farmer, Knight, Lafferty, Pangborn, Spinrad and Tenn. Pardon our name-dropping, but ALPHA 4 is a book not to be missed!

●●●

Turning to the adult-fantasy side of the house, we find HROLF KRAKI'S SAGA, Poul Anderson's retelling of a famous Norse legend.

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BB

"What would happen if I decided to get up and just walk—" she pointed off to the left—"that way, in a straight line?"

"You'd come to the edge," I said. "Wherever that is."

"Yes. Suppose I were a native—a resident—then what?"

"Then you'd probably fall asleep by the side of the road, and when you woke you'd suddenly remember urgent business back in town, or forget what you were doing there in the first place. And you'd never have the urge to roam again."

"You mean they dethink and rethink these people? Just to keep them putting on a show for us?"

"Also to keep them happy," I argued. "It's for their own good. Think how they'd feel if they knew they were part of a, a display. This way they live out their lives without knowing of any options. It's no more unfair to live here than it was to live in the actual Seventeenth Century. A lot better—the food is adequate, diseases are eliminated, sanitation is much improved."

"It sounds like an argument for slavery," Diana snapped. "Or pig-farming!"

WE HAD come to what had to be the main street of the district. It was paved and lit. Bayswater High Street, the signpost read. The lights were open flames on stanchions, bright enough to mark the way but not to illuminate. "Perhaps we had better head back," I suggested. "In another half-hour it

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will be too dark to see our way."

"The moon will be up in twenty minutes," Diana told me. "And it's only two days off full. Plenty of light."

"Example of your memory?" I asked.

She nodded. "I saw a chart once."

The houses were two and three story, the upper stories overlapping the first. Picturesque in daylight, they were transformed at dusk into squatting ogres lurking behind the streetlights. The few people left on the street were scurrying like single-minded rats toward their holes.

"Some things are changeless," I said, pointing my walking stick at a receding back. "Fear of the night is one such. These people fear footpads and cutthroats—our people fear the stars. Evolution, I fear, is too slow a process. Our subconscious is still a million years behind us—in the caves of our youth."

"You mean that literally?" Diana asked. "About our people fearing the stars?"

"Extraordinarily literally. Astrophobia is the current mode. Not a fear of standing under the stars, like Chicken Little, but fear that, circling one of those points of light, is the race that will destroy humanity. The government spends billions each year in pursuit of this fear. I believe that it couples with the subconscious belief that we deserve to be destroyed. That all Earth has turned its back to the stars to live wholly in the past is part of the syndrome—our fears unite here."

Diana asked me a question then, something about the deeper manifestations of this ailment, and I prattled on about how easy it was to recognize the problem, but no one was getting it cured because it was chronolous to declare the inside of your head sacrosanct—if you were of high enough status to make it stick. I'm not sure of what I said, as most of my attention was on three sets of approaching footsteps I was attempting to analyze without alarming Diana. In step, but not in the rhythm of soldiers—a slightly slower, swaggering step. Three young dandies out for an evening's entertainment, no doubt.

They rounded the corner and appeared under the light. They were well dressed, indeed foppishly dressed, and carrying swords—so they were gentlemen of this time. Or at least they were sons of gentlemen.

"What say?" the first one said, seeing us.

"Say what?" the second demanded.

"What?" asked the third. "What ho!" he amended, strutting toward us. "What have we here? A lissome lass, begad! And unescorted."

"Madam," the first said, "my lady, ma'am—chivalry is not dead! We shall prove this."

Diana looked puzzled, but completely unafraid. I don't know how I looked—I felt weak. "Get behind me," I instructed her.

"Yes, indeed," the third amplified, "we shall chivalrously rescue you from that old man there, who's

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clearly attempting to have his way with you."

"We shall," the second added, "expect a suitable reward."

"Is this some game?" Diana asked me.

"No," I told her. "These lads are going to try to kill me. If they succeed they'll kill you, too—eventually."

The first drew his sword. I twisted the handle of my stick until I felt it click. We were now about even—three swords against one sword-stick with a narcospray tip. Anyone within one meter of the front of the tip would fall inanimate ten seconds after he was hit—and I should be able to keep even three of them away for ten seconds.

"These are truly enemies?" Diana asked me, staring up into my eyes. There was an undercurrent of excitement in her expression.

"Yes," I said briefly. "But don't worry. Just stay—"

"I trust you," she said, nodding as though she had just made a prime decision. "Enemies!" Then she was in motion.

SHE dove forward onto her shoulder and pushed off as she rolled, catching the first one on the chin with the heel of her boot. He flew backward and came to a skidding stop on his back across the street. The second was just starting to react when she slammed him across the side of his head with her forearm. He slid slowly to the ground, folding in the middle as he dropped.

The third was aware of his danger, although he had no clear idea of what this whirlwind was. His sword was up and he was facing her. I managed one step toward them when, with a small cry of joy, she was past his guard and had fastened both of her hands around his throat. She must have known just where to press with her small fingers, because he didn't struggle, didn't even gasp—he just crumpled. She went down with him, keeping her grip. Her eyes were alive with excitement and she was grinning. She had, somehow, not the look of a person who has vanquished a foe, but more that of a terrier who has cornered a rat.

"All right," I said, going over and pulling her off. "It's all right. It's all over."

She looked up, small and sweet and innocent, except for a rip in the right sleeve of her dress. "He's still alive, this one."

"No!" I yelled, when I saw her hands tighten around his throat.

She stared at me. "The other two, they are dead."

"Leave him," I instructed.

"Yes." She stood up, sounding disappointed.

I took her hand and led her away. I began to tremble slightly—a touch of aftershock. Diana was calm and gentle. I had no empathy for the three ruffians—they had danced to their own tune—but I worried about Diana. No—I think rather she frightened me. I was not concerned with the ease with which she dispatched—body combat ballet is not new to me.

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I worried rather about the joy with which she destroyed.

I remembered to disarm the stick, so as not to shoot myself in the foot. "Diana," I said, picking my words not to offend, "I admire the way you handled those men. It shows great skill and training. But when a man is down—more particularly when he is unconscious—you don't have to kill him."

"But he was an enemy. You said so."

Semantic problem—or something more?

"Christopher?" We stopped at the innyard and she stared up at me, her eyes wide.

"Yes?" Tears were forming in the corners of her eyes and she was shaking. Delayed reaction? I held her and stroked her long hair.

"Those men wanted to hurt us. It wasn't a secondary thing, like wanting to take our money and hurting us if we resisted. They *just* wanted to hurt us."

"True."

"Why would anyone behave like that?"

It wasn't the fight that had her upset, but the morals of her opponents. "You killed two of them and were working on the third," I reminded her.

"But that was their doing. You said they were enemies. They declared status, not I. They attacked unprovoked. And I had your word."

"Right," I said, deciding to watch my words around this girl who took my definitions so literally and acted

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on them with such finality. "Well, they behaved that way because they've been taught to think it's fun."

"I don't understand," she said.

"Neither do I," I agreed.

We retired to our separate rooms and I spent some time studying the cracks in the ceiling in an effort to think before I fell asleep.

Diana and I spent the next ten days together in Shakspere's London. Diana was delighted by everything and I was delighted by her. We grew closer together in that indefinable way men and women grow closer together, with neither of us mentioning it but both of us quite aware. She questioned me incessantly about everything, but gave little detail in return. I learned she had no family and grew up in a special school run by Earth government. I learned how beautiful she was, inside and out, in motion and in stillness.

After the first week we shared the same room. Luckily Seventeen was a time that allowed of such a change. The innkeeper persisted in winking at me whenever he could, until I felt I had earned that dinner, but we suffered no other hardship for our affection.

Then one day over breakfast we decided to abandon the Seventeenth Century. I voted for the Twentieth, and Diana ayed, although she knew little of it. "Those are the breakthrough years, aren't they?" she asked. "First flights to the nearer planets!"

I munched on a bacon stick. "Out of the cradle and into the nursery," I said. "And the babes yelling, 'No, no, I don't *want* to walk—haven't learned to crawl properly yet.' As though that skill were going to be of value to them in the future. Interesting times. As in the ancient curse."

"Curse?" Diana asked, wide-eyed as a child.

I nodded. "May your children live in interesting times," I said. "Chinese."

"Not much of a curse," Diana insisted. "Where are the mummies' hearts and the vampires and such?"

"Now that would be interesting," I said. After breakfast I pushed the call for Anno Domini and they removed us in a coach. They declothed us and reclothed us and backgrounded us and thrust us into an aeroplane.

III

THIS dubious contrivance, all shiny and silver and with two whole piston engines—to keep us going forward so we wouldn't fall down—flew us to LaGuardia Field outside New York City. The field, like the aeroplane, was sleek and shiny and new and modern. Everything was modern—it was in the air. The modern taxi drove us to the modern city with its modern skyscrapers muraled with the most modern art. The year was 1938 and nothing could go wrong.

We checked into the Plaza and took a tenth-floor suite overlooking Central Park. It was evening and the

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park lights, glowing over the paths, roads, fields, rocks, ponds, streams, lakes and other structured wildnesses, turned it into a rectangular fairyland. The skyline surrounding the park was civilization surrounding and oppressing imagination, keeping it behind high walls and ordering its ways. This is known as interpretive sightseeing.

Diana had a lot of things she wanted to do. She wanted to see a play and a movie and a zoo and an ocean liner and a war and a soap opera and a rocket leaving for the moon.

"Everything but the rocket," I told her. "Your timing's off by about thirty years. They haven't even designed the machines to build the machines to build the rocket yet."

We compromised on a visit to the top of the Empire State Building, the closest thing to a trip to the moon that 1938 New York could provide.

"This is all real, isn't it?" Diana asked as we wandered around the guard rail, peering at Bronx tenements and Jersey slums.

"In a sense," I said.

"I mean the buildings are buildings, not sets, and the streets are streets and the river is a river and the ships are ships."

"And the people are people," I agreed. "The original had eight million, I believe. One of the three largest cities of the time. That's a lot of people to stuff into a small area and move around by automobile and subway."

She nodded. "How many people are here now—residents, I mean?"

"I don't know," I told her. "I doubt if they have the full original millions."

"Still," she said seriously, "it would be fair to say that there are a great many."

"That would be fair," I agreed.

"Why are they here?"

"It's getting chilly," I said, buttoning the two top buttons on my coat. "Let's go eat dinner."

"How can we justify bilking so many people out of their lives—out of whatever value their lives might have—by making them live in an artificial past?"

"How do their lives have any less value here than in realtime?" I asked in my best Socratic manner.

"Suppose you were an inventor," Diana hypothesized. "How would you feel to discover that you had reinvented the wheel—or the typer—or the bloaterjet?"

"I'd never know it was a reinvention," I said.

"But it would be. And you would have been cheated out of whatever good and new and beautiful you could have invented in realtime."

"I doubt Anno Domini encourages invention," I said.

"Worse! Where shall we eat dinner?"

We took a Domino Cab to where Glen Miller and his band were providing the dinner music. The music must have soothed Diana, since we got through the rib roast and into the crepes suzette before the sociology seminar continued.

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"What about people like Glen Miller here—or Shakspere—who were real people in history? Are they actors?"

"No, they're mindplants. Each of them has the personality and ability of the character he becomes, to the best of our ability to recreate it."

Diana sat silent for a minute, considering, her mouth puckered into a tight line and her eyebrows pulled down in concentration. She stared at her spoon. Then she picked it up and waved it at me. "That's disgusting. You don't merely cheat them out of the future—you cheat them out of their very lives."

It was my turn to be silent. I was silent through *String of Pearls* and *Goldberg's Blues.* Diana watched me as though expecting momently to see wisdom fall from my lips, or possibly smoke rise from my ears. I found myself uncomfortably defending policies I had never really thought about before. I tried to think it out, but was distracted by Diana's stare. I felt that I had to look as if I were thinking and it's very hard to work at looking the part and think at the same time.

"I would say it's more productive rather than less," I said when I had the idea sorted out. "You know our Shakspere has added several plays to the list that the original never got around to writing. *Saint Joan* and *Elizabeth the First*—those are his. We haven't cheated him. Both he and humanity have benefited from this arrangement."

"It's not an arrangement," Diana stated positively. "It's a manipulation. It takes two to make an arrangement. Let's dance."

THERE is something deeply satisfying about two bodies pressed together and moving together. The waltz and the foxtrot are more purely sexual than either the stately minuet before them or the frenzied hump after. We glided about the floor, letting our bodies work at becoming one.

"Christopher," Diana said.

"Hm?"

"I'm glad we've become friends."

"More than friends?"

"That, too," she said, squeezing against me. "But friends is something else. I think you're my only friend."

"I hope you exaggerate," I said. "That's very sad."

We danced silently for a moment. Then Diana stopped and pulled me back to our table. We sat down. "This is a major thing, isn't it?"

"Friendship?"

"No. Anno Domini and this whole recreation. How many different historical times are there?"

"You're so beautiful and so serious and so young," I said. "And so intent—and so knowledgeable in some fields and so ignorant in others. Whoever brought you up had strange educational values."

"I told you I don't like talking about that," she said. Her expression could best be described as petulant.

"It requires no conversation," I told her. "Fifty."

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"Fifty historical periods?" she said, instantly picking up the thread. One of the things I admired, that ability. "But there aren't that many centuries!"

"Many are covered with more than one set. The really popular ones are started every twenty-five years. All have one, at least. There may be some centuries that appeal not at all to you, but someone has a need for them."

"What sort of need? Why that word?"

"Ah! Now we speak of purpose: what you asked me before. The past is Earth's only industry. Its function is to hold together the more than two hundred diverse human cultures, spread out on close to a thousand planets, circling as many suns. Tens of thousands of people from all these planets, all these new directions for humankind, are here at any one time, sharing the one thing they all have in common: the past.

"This maintains Earth's pre-eminence in the councils of man and presumably bolsters her prominence in the Parliament of Stars. But more important: it provides a living point of origin for the human race.

"The psychologists decided over four hundred years ago, at the time of the Mabden Annihilation, that this was the best—perhaps the only—way to hold us together. Those of us who weren't already too far out. There are external threats still, you know."

"I know," Diana said dryly. "You mentioned the fear syndrome earlier in this connection."

"It should be taken seriously," I insisted. "Here on Earth you feel secure, but it's only because you're so far away from the action. The Denzii—"

"I take it very seriously," Diana assured me. "So seriously that I'd prefer not to talk about it even now."

"Yes. I didn't mean to frighten you."

"Frighten?" Diana smiled gently. "No, you don't do that. Tell me, what else is there to do in this year, in this town?"

We took the subway to the Battery and walked quietly on the grass around the Aquarium, which was closed and shuttered for the night. Then we took the ferry over to Staten Island and stood in the open on the top deck, letting the cold brinewind flap our coats and sting our cheeks. We waved to the Statue of Liberty and she smiled at us—or perhaps it was a trick of the light. I had my coat wrapped around Diana and she huddled against my chest and I felt young and bold and ready to explore uncharted worlds. We talked of minor things and we shared a cup of coffee, black and four sugars, and I think, perhaps, realized fully that we were in love.

THE next day we went to the Bronx Zoo in the morning, came back to Manhattan in early afternoon for a matinee of *Our Town,* and then returned to the hotel to dress. A man was waiting in the sitting room of our suite. He was standing.

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"Why, Kroner," Diana said, "how delightful to see you. And how silly you look in those clothes here." Thus she effectively suppressed the *Who are you and what are you doing in my room?* that I had been about to contribute to the occasion. Kroner was a short man with too much hair on his head. He wore a onesuit that squeezed around his stocky, overly muscled body. The weightlifter is a physical type I have always disliked. I didn't recognize the Identification and Position badge he wore, except that it was medium-high status and something to do with education.

"Who is he?"

"Kroner," Diana said. "My professor—or one of. And this is Christopher Mar."

"Delighted." Clearly he lied.

"Surprised," I said. We touched hands. "To what do we owe this visit and what may we do for you? Any professor of Diana's—" I waved a hand vaguely. The current trend toward the vague can be very useful in conversation.

"I suppose you know what you're doing?" Kroner asked coldly.

"I have no idea of what that means," I told him. "At which of us are you sneering?"

"Both of you, I suppose," Kroner said. He sighed and sat down on the sofa. "You're right, I was being hostile. And there's no reason. You're a very important man, Senior Senator Mar—there's no way I can threaten you. And Grecia knows I'm only interested in protecting and helping her. When she disappeared from Seventeen without notifying us—"

"Who?" I interrupted.

"Grecia. Your companion."

"Is that right?" I asked Diana (Grecia).

She nodded.

"Of course you have a perfect right—"

"What does she call herself?" Kroner asked.

"Diana Seven," I said. Diana (Grecia) looked defiantly down at Kroner and remained silent.

Kroner nodded thoughtfully. "Of course," he said. "A clear choice. Then he doesn't know? You haven't told him?"

"No," Diana (Grecia) said. "Why should I?"

"Of course," Kroner repeated. "From your point of view, no reason. You've always been the most stubborn and independent-minded. No matter how much we strive for uniformity. Not that we mind, you understand—it's just that the variations make the training more difficult to program. I suppose it will make you harder to predict in action, so it's all for the best."

"Haven't told me what?" I demanded. I tried to picture some horrible secret, but nothing would come to mind.

"Diana Seven is not a name," Kroner told me, "it's a designation. Choosing it as her alias is the sort of direct thinking we've come to expect from Grecia."

"It's a comment," Diana (Grecia) said.

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"Grecia is number seven in an official government program known as Project Diana," Kroner said. "The number is arbitrary."

"So is the name," Diana (Grecia) said. "You know how I was named? Listen, I'll recite the names of the first seven girls, in order—that should give you the idea: Adena, Beth, Claudia, Debra, Erdra, Fidlia, Grecia. It goes on like that. I prefer Diana Seven, it's more honest."

"Diana Seven you are to me forever," I told her. "I don't understand, though. What sort of government project?"

"This is going to sound silly," Kroner said, managing to look apologetic, "but I don't think you have the need to know."

"I might not have the—but I do indeed need to know very badly, and I can develop the official Need to Know in a very few minutes real-time."

"I will tell everything," Diana said, sitting down on a straightback chair and crossing her shapely legs. "What do you push to get them to bring up drinks?"

"I'll do it," I said, picking up the housephone and dialing. "What would you like?"

"Coffee," Diana said.

"Another profession," Kroner said. "I guess you're right—we'd better talk about it."

"Something harder than coffee for you," I said, and ordered a pot of coffee and a portable bar sent up.

"Grecia—"

"Call her Diana—she prefers it."

KRONER shrugged. He was not very happy. "Diana is a GAM. Project Diana is one of a series of GAM projects that Future is funding."

GAM = Genetically Altered Man. GAMs were in disfavor now, at least on Earth, as it was felt that no alteration of the zygote could make up for a happy home life, or some such illogic.

"I thought the Bureau of the Future was only involved in long-range planning of city growth and transportation and that sort of thing," I said.

"And defense," Kroner told me. "Diana is a defense project."

That stopped me. I went into the bedroom to take off my tie and think of something clever to ask.

"What do you mean, 'a defense project'?" I cleverly asked when I returned. The bar was ported in then, so I had to wait for my answer. The waiter tried hard to preserve his air of waiterly detachment and not stare at Kroner, and even harder not to smile.

Kroner glared at him and stood up, flexing his biceps under the skintight onesuit. "What's the matter?" he demanded. "What are you staring at? Haven't you ever seen a Frog Prince before?"

The waiter merely gulped and fled the room. We all burst out laughing and I remembered that in my youth one of my closest friends had been a weightlifter. "You really should have dressed for the period," I told Kroner.

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He shrugged. "I was wearing a period overcoat," he said, gesturing to a crumpled garment lying over a chair.

I fixed our various drinks and we sipped them and stared at each other. "We've been keeping an eye on the girls while they were on their travels," Kroner said. "When Diana took off with you we got worried. Diana has a certain reputation among the staff as a trouble-maker and you are a—prominent senator. The combination could be explosive."

"How?" I asked.

"The projects are played down," Kroner said. "For us, any press is bad. We'd be caught between two fires: those who are afraid of any GAM projects—the 'The only good superman is a dead superman' group—and those who would feel sorry for Diana and her sisters—poor little girls deprived of a home life and mother love and apple pie."

"It might have been nice, you know, all that stuff," Diana said, a surface anger in her voice covering some deeper emotion. "Why do people decide they have the right to do what's good for other people?"

"What?" I asked, feeling ignorant and ignored.

"We didn't exactly do it because it was good for you," Kroner said sadly. "We did it because it was necessary for us. We never lied to you about that."

"Great ethics," Diana said in a low, clipped voice that had an undertone of controlled scream. "We screwed up your life from before you were born, but at least we didn't lie to you—and that makes it all all right." She turned to me. "Did you know I'm a mule?" she demanded.

"What?"

"A mule. Or perhaps a hinny. Except instead of a cross between a jackass and a mare, I'm a cross between a human gamete and a micro-manipulator. Sterile."

"You mean you're—"

"No pills, no inserts, no children—no chance. Just me. Dead end. Supermule."

I went over to hold her, to show I understood, but she drew away. Mulelike, I couldn't help thinking, in her anger. "I'm on your side, you know," I said to her. She nodded, but stayed encased in herself.

I asked Kroner, "In what way is this girl a weapon?"

"Not a weapon," Kroner said. "More like a soldier."

"A hunting dog," Diana said. Well, it was a better self-image than a mule.

Kroner nodded. "In a way. Superfast reflexes, for one thing. One of the reasons she's small: information travels to the brain faster. Nerves react and transmit faster. Eyes see farther into the infrared and ultraviolet. Raw strength is of little use today. You know how old she is?"

I didn't. "I'm not good at guessing age," I said.

"Twelve," Kroner said.

There was, I believe, a long pause then.

"Do you mind?" Diana asked softly.

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"I am surprised," I said.

"The tendency in naturally evolved high intelligence is for longer childhoods, not shorter," Kroner said. "You must experience more, cogitate more, and have more time to experiment—play—to develop a really high intelligence potential. But it is possible to mature a high intelligence very quickly in an extremely enriched environment. Twelve years from birth to adult is about the best we can manage. The body takes that long to grow and mature anyway, if we want a comparatively normal body."

"Diana is an adult," I said. "No matter how many times, or how few, the Earth has circled the sun since her birth."

Kroner nodded. "Diana is a highly capable adult, able to handle herself well in almost any situation."

"I'll not argue that," I said. "She dispatched three ruffians who attacked us and did so with unseemly ease."

"Ah!" Kroner said. "We thought that was she. Very good, Diana. Of course, that's what she's been trained and bred for, so it's fitting that she did."

"Trained for close combat?" I asked. "What sort of war are you expecting?"

"Not that," Kroner explained. "For you, as for most of the rest of humanity, killing any sentient being—and many lower animals—would be murder. You'd have to steel yourself and be highly motivated to perform the act. For Diana, killing anything that isn't human—or even humans who are clearly 'enemy'—is equivalent to hunting. And, like a good hunting dog, she enjoys it. Isn't that so, Diana?"

She nodded. "I can't see anything wrong with killing an enemy. And the fact that I know this is genetics and conditioning doesn't matter—all attitudes anyone has are a result of genetics and conditioning. If you gentlemen will excuse me, it's been a long day and I think I'll go to bed."

KRONER and I spoke privately for a short while after Diana retired. I suspect Diana listened at the door, as she was awake when I went to bed, but if so I'm glad of it.

"Does this mean I have to worry about Diana's getting angry at me and breaking my neck?" I asked Kroner, when she had left.

"Not at all," he said. "If anything, the opposite. She may tend to overprotect you. To kill a human being who is not an enemy would, in any case, be murder, and she is incapable of murder."

"How does she determine an enemy?"

"I think, at the moment, she'll take your word for it. She appears to be fixated on you. You may call it love, if you like, but we prefer the scientific term."

"I appear to be fixated on her," I said. "Whatever you call it."

"That's fine. We approve. As long as you aren't planning to use her—or make a political issue or anything of that sort—we're on your side."

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"What is she doing here anyway? Is school out? Vacation?"

Kroner fixed himself another drink. "No," he said. "This is part of her training. Mixing with humanity to learn more fully what it is she may be fighting for. Two years of this—going and doing more or less where and what she wants—then she'll be ready for, let's call it graduate school."

"More fixating?"

"That's right. Fixating on man. Those in charge of this project seem a bit afraid of their creation."

"Historical precedent," I said. "Or, at least, literary."

"Yes," Kroner said. "Take care of Diana. Enjoy her. Love her. She needs more love than the other girls."

"You mean she fixates more strongly?" I asked.

Kroner smiled. "As of now," he said, "I'm on vacation. Bye." He picked up his coat and left.

I went in to sleep with Diana and she held me tight for a long while. I think she would have cried if she had known how. I held her, but it's hard to comfort someone who cannot cry.

BACK in realtime—away from Earth and Anno Domini—I used my status to find out about the Project. Diana opted to stay with me. We fixated well together.

It was difficult, even for me, to open the private record of Project Diana. It was the most recent in a line of such projects dating back to shortly after the Mabden Annihilation. I immersed myself in it and read motive, intent, achievement, method, fear and design in the record crystals.

Earth is afraid of its heroes. Always has been.

Diana is sterile by design. Female by convenience—easier to control without the Y chromosome. She is sterile by design. Safer. Can't breed a superrace behind our backs.

Diana's cells won't regenerate. Our long life depends upon regeneration—actually replication—of certain cells. Diana's—let us call it template—is inaccessible to our techniques. Also by design. Safer thus. Can't make long-range plans behind our backs. She will also age fast and be old by forty—probably dead by fifty.

I went home that evening and cried myself to sleep. Diana held me, but the crying frightened her and she couldn't help because I wouldn't tell her why, and it's hard to comfort someone unless you know why he's crying.

I have two years with her before she has to go off to prepare for the war we may never have. She wants to go. They want her for twenty-five years, she says, and she owes them that.

We're planning what we will do when she returns. There are so many things she wants to do and see in this vast galaxy. I promised to show them all to her.

I hardly cry at all any more, even late at night. ★

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The shiny new machine had a hypnotic quality, allowing a glimpse of things to come. Things, yes . . .but not people!

AND NO BIRDS SING

WILLIAM E. WILSON

"I DON'T know how to describe it exactly," Harry Norman said. "I still see things as well as ever. Things, I mean, like machinery and cars and houses and trees. And myself, too. In the mirror, when I shave or—" He glanced down at his hands splayed on his thighs. Brown spots were beginning to appear on them, just as they had appeared on the backs of his father's hands, he remembered, when his father had reached fifty. "It's not things or myself—it's people, other people. The only way I can think to put it is that they're—well, everybody is fading."

Harry Norman was a stocky

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ruddy-cheeked man with crisp black hair that was lightly flecked with gray. He held his broad shoulders back with a military stiffness that stretched his striped blue-and-white shirt tight across his chest. His dark summer suit was conventionally tailored. His black shoes were shined to a high luster.

"I first became aware of it a week ago—exactly a week ago, in fact. I remember the day because that was when they delivered the new carding machine at the shop. One of my salesmen was standing in the door of my office talking to me. He had a hank of red yarn in his hand and I could see the yarn and the clothes he was wearing distinctly, but all of a sudden his face blurred and his features ran together—like a fadeout in the movies, if you know what I mean. It lasted only a few seconds and then I could see his face clearly again.

"I was startled, but I didn't think much about it afterward. All of us were too excited about the arrival of the new carding machine that day to give much thought to anything else. But that night, at home, when my son Dave came in late to dinner and sat down opposite me, I noticed he had shaved off his beard and cut his hair and I started to say something to him about it. I've never minded the beard much, but I couldn't stand the long hair, although I've never criticized it. So I started to say something then—tell him how much better he looked—when suddenly the hair was all there again, down to his shoulders. And the beard was back, too. That was when I decided I'd have you examine my eyes."

The oculist, Charles Warren, a gray wisp of a man whom Harry Norman had known all his life, smiled and spoke as if he were humoring a child. "Well, now, Harry, it sounds like you've got something new for ophthalmology. Here, let's try this. Read that third line for me again."

He slipped another disk into the heavy frame resting on Harry Norman's nose and Harry dutifully read the line.

"Oh, I can read as well as ever," Harry said afterward. "Even fine print. But you, Charles—when I look at you—"

He broke off, feeling foolish, convinced that his friend would never believe that his face was only a smoky mist above the glistening and sharply defined white shirt he was wearing, that the hand that had inserted the lens in the frame was only a gray shadow.

The oculist continued the examination and Harry submitted to the rest of it without protest. Afterward the two men went into the doctor's consultation room and sat down with the doctor's desk between them.

"Have you been working pretty hard lately, Harry?"

Harry shrugged. He had worked hard all his life. If you were in the yarn business, especially in New England, you had to work hard—most of the mills had moved south long ago.

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Oh, he had worked hard, all right. But he had enjoyed it and he had done pretty well. Even with both kids in college now—Dave and Lucy—he was doing all right. He could give them and his wife Dora just about anything they wanted. Early in the spring, when Dave and Lucy had said they wished they had their own swimming pool, for example, like some of their friends, he had had one installed. At the mill he would have the new carding machine in operation in another week and that would make it as modern as any mill in the country. Yes, he had worked hard, but he liked his work.

"Been worried about anything?"

WELL, anyone who read the newspapers and watched TV these days must worry, Harry supposed, what with the war in Southeast Asia all those years and the unrest and the violence and those hijackings and the drug problem and now inflation and the collapse of the dollar and the mess in Washington. But what was the use of worrying about something you couldn't do anything about? Take the war. He had watched the same horrors on TV over and over for so long that finally he had gotten to the point where he was almost used to them or else he turned away and didn't look. As for the kids, he never asked Dave and Lucy too many questions about their private lives and just hoped for the best. As his friends said, if your kids weren't in jail or mental hospitals these days you should consider yourself lucky. Of course his marriage had its ups and downs, like everybody else's, but he really believed that he and Dora were happier now than they had ever been, all things considered.

"And physically," Harry concluded, "I've never been in better shape. I had my annual checkup just last week and everything was okay—blood pressure, blood sugar, prostate, EKG, all that."

He spread his hands on his thighs and leaned forward.

"But there's another thing, Charles," he said. "People's voices. I mentioned Dora just now. You may remember her voice. It used to have a kind of harshness. I think it was one of the things that first attracted me to her. It sounded sexy when I was young. Then, after we were married for a while, it got on my nerves. But lately Dora's voice seems to have softened. Sometimes I can hardly hear what she is saying. Sometimes I don't hear her at all. I'd think I was getting deaf, except that I can hear everything else as well as ever—that noise out there in the street, for instance, and voices if they're mechanical—you know, on the telephone or TV. But when people talk, even in the same room—I don't know . . ."

Through the cloud that obscured the doctor's face Harry thought he saw him smile again.

"Anybody getting deaf in this age is lucky, Harry."

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As the doctor spoke it seemed to Harry that the hum of traffic outside rose briefly to a roar in the room, although the windows of the air-conditioned office were closed.

"I'm sure I'm not getting deaf," he said. "It's only when people talk." He shrugged. "Maybe I don't listen any more."

The doctor began to tap on his desk with a silver pencil and, while Harry watched, the hand that held the pencil vanished and the pencil jigged on the desk unsupported. He was about to mention the phenomenon when the hand suddenly came back into view.

"There's nothing the matter with your eyes," the doctor said finally. "I think you must be suffering from a nervous disturbance of some kind. I'm no neurologist, so you'd better go to one. Suffolk is a good man. You go see Suffolk. I'll arrange it for you. Maybe all you need is a vacation."

HARRY doubted that a neurologist could do anything for him. He was sure that what he saw—or, rather, did not see—was real, not imagined. But when he went out into the hot June day and drove back to the mill he tried to argue with himself that maybe his trouble was nerves, after all. Maybe he had let himself get too concerned about the state of the world. Maybe he had absorbed more than he realized of his children's discontent.

To put an end to his thoughts he turned on the radio in his car. Somebody was asking somebody the usual questions about modern problems and whoever was being interviewed was using a great many big words to say nothing. He tuned in another station. On it a singer was moaning words that were obviously intended to be apocalyptic but were incomprehensible. On a third station a man was whispering confidentially about irregularity. Harry turned off the radio.

The shift was changing at the mill and when he got out of his car in the office parking lot Harry paused to watch the workmen leaving the building in a gray mass, like a huge snail crawling across the millyard. All he could think, as he watched, was that there were too many of them. They weren't individuals any more. He could call hardly a dozen of them by name now. It was the same everywhere. There were too many people in the streets, on planes, on the road, in restaurants, on all the good vacation places.

The new card would let him cut down on a lot of manpower—just as well he didn't know all of them.

As he watched the men and women cross the millyard all of a sudden their heads and hands and arms vanished and nothing was before him but a moving mass of empty workclothes, shoes and workpants and short-sleeved shirts. He rubbed his eyes and looked again. The headless, armless procession continued toward the parked cars in the

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mill lot. Saliva filled Harry's mouth and, believing he was going to vomit, he bent over with his head between his knees. When he looked up again at the workers the heads and arms and hands were all back where they should be, attached to the clothed bodies.

"Nerves!" he said aloud, contemptuously. "I *saw* it!"

But even as he spoke the assertion trailed off in his mind and became a question and he was telling himself that what he had just seen had to be an illusion. He would have to go to Dr. Suffolk, the neurologist, as Charles Warren had proposed. But in the same moment he reversed himself, deciding to wait a while. He would cancel any appointment Charles might make with Suffolk. If he was suffering only from nerves maybe the illusions would cease of their own accord.

He waited a week, until the day after his fiftieth birthday, the day the new carding machine was installed and ready for use. On that day he discovered that it might be disastrous if he waited any longer.

Harry told the neurologist, Suffolk, that, at his wife's suggestion, he had invited his son to come down to the mill to witness the first operation of the new carding machine. The card was the very latest in mill equipment, he told Suffolk, and everyone from himself down to the night watchman had buzzed with pride and excitement while it was being installed. Dave had not wanted to come to the mill, however, Harry said, because he had invited some friends over for a swim in the new pool at home.

"I wanted to point out to the boy," Harry told Dr. Suffolk, "that he was going to inherit the business come day and the least he could do was to show some interest in its progress. But I didn't say anything. Dave doesn't want to go into the business when he gets out of college. He thinks he wants to be a farmer and raise everything organically. I hate getting into that argument with him, so I said I hoped he would come in with me if he could and let it go at that." The boy did show up finally, at the very last minute, just as the mill foreman was announcing everything was ready for turning on the power.

"All Dave had on was a pair of

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ragged swimming trunks," Harry said. "He was even barefooted. I was embarrassed of course. For him as much as myself. When we went out into the mill together I could hear some of the hands snickering behind our backs. After all, Dave is twenty years old and ought to have known better. But I didn't say anything."

A carding machine, Harry explained to Dr. Suffolk, is composed mostly of teeth—thousands of small steel teeth that meet on large cylinders revolving in opposite directions. The new card stood at the far end of the long millroom, bright and shiny, its green paint glistening, its oiled steel gears catching gleams of the sunlight that poured in through the high windows, its wire combs sparkling like diamonds. Harry and Dave joined the men and women who stood round the machine admiring it. "Okay," the mill foreman shouted and the gears began to turn with a low rumble.

FOR several minutes they watched. Harry was sure that even Dave could not help admiring the machine's insatiable appetite and the speed with which it devoured the fiber. Nothing escaped it. Every shred was caught in the endless interlocking of the vicious little wires and was clawed into gossamer.

"Isn't it a beauty?" Harry asked finally, turning to his son.

But Dave was no longer at his side. Harry swung about to see where he had gone and, not finding him in the crowd behind him, swung back again angrily, annoyed with the boy for his lack of interest. In that moment there was a loud cry at his side—a warm wetness splashed across his cheek and he heard the foreman shout for the power to be turned off.

At the same time someone else yelled, "Mr. Norman! Look out!"

Harry told Dr. Suffolk that he had believed for a moment that the blood on his face was his own, although he had felt nothing. But in the next instant the men were shoving him aside and gathering about Dave, who must have been at his side all the time, invisible. Now, however, Dave's head and naked shoulders loomed above the workmen who surrounded him.

"I'm okay," Harry heard the boy say. "It's just the tip of my finger. I'm sorry I yelled. It was my fault."

"I simply had not seen him," Harry explained to the neurologist. "The boy had vanished temporarily. Maybe if I had glanced down when I turned to speak to him I'd have seen his swimming trunks. But I didn't. He was carelessly leaning too far over the card and I jostled him and he lost his balance. Fortunately the card caught only the tip of his finger before the foreman grabbed him and saved him from the rest of those steel teeth. But, my God, Doctor, I might have killed him! I tell you, the boy simply was not there when I spoke to him. It wasn't that I failed to see him—he wasn't there. When I bumped into him I didn't feel any-

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thing. There was nothing there." Harry paused and tried to gather his thoughts. "That's a new development. Not feeling anything. Because—well, until today, when I shook hands with someone or when I kissed my wife, even if I didn't see anything—" Harry wondered how he could convince the neurologist that what he was telling him was true. "Everything is disappearing." he said hopelessly. "Everything that lives—men, women, animals—even you."

He looked hard in the direction from which Dr. Suffolk's voice had come to him earlier in the interview and saw nothing but another white shirt like the occulist's. But this time there was no blur above the starched high collar as there had been in Charles Warren's office a week before. This time there was no face at all—nothing.

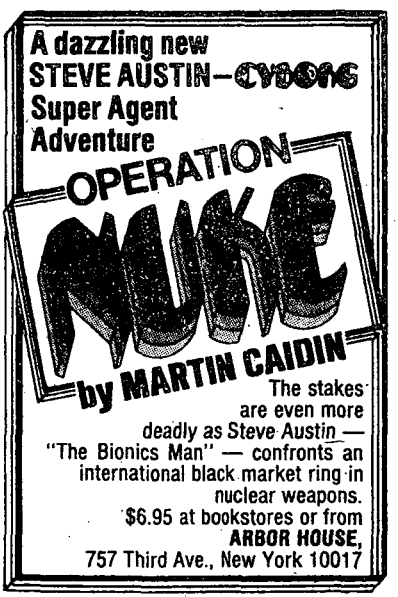
"Even you, Doctor—" he repeated.

Dr. Suffolk made no comment. Instead, a series of questions began to come from behind the desk in a voice that was barely audible. The voice asked about Harry's childhood, the things he ate, whom he loved, whom he hated, what he dreamed of. As the story of his life was thus extracted from him, it struck Harry as a very ordinary one indeed. A normal and healthy childhood, no strong rebellions against or attachments to his parents, average grades in school, no tempestuous love affairs, a reasonably happy marriage, two kids who troubled him at times but gave him no cause for serious worry, moderate success in business, no torturing ambitions or frustrations, no extraordinary appetites or sexual aberrations, no recurrent dreams. To Harry it all seemed extremely uninteresting. He had no idea of what the doctor could make of it.

"I think you need analysis." the doctor said finally.

"If you don't believe in a thing like that, Doctor, I don't see how it can do you any good. Now, maybe if I were seeing things—but I'm not."

The doctor lighted a cigar—no hand held the match and no mouth supported the cigar. Afterward the cigar's end pulsated warmly above the empty white collar and the smoke rose in blue clouds where the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doctor's head should have been. Finally the cigar descended in an arc to an ashtray and lay there.

The low voice came again. "Can you still drive your car safely, Mr. Norman?"

The question, Harry thought, at least acknowledged that he had been telling the truth, that he was actually not seeing people.

"I can see traffic all right," Harry said, "and pedestrians, too—if they have clothes on." He uttered a short laugh. "Maybe—in view of what happened to Dave—I'd better avoid the streets around the university. Some of those college kids, you know—"

The cigar rose from the ashtray. The end of it glowed above the white collar and the oracular voice came once more through the smoke.

"Maybe if you could get off alone somewhere for a while, Mr. Norman, where you would not see or talk to anyone, where there are no telephones, no TV, no mail—" The voice had begun to sound wistful. "If there is such a place left in the world," it concluded.

"I have a cabin in the Maine woods." Harry said.

"That might be just the place."

AT THE end of the interview the white shirt rose from behind the desk and followed Harry to the door. Harry stopped and turned about.

"Doctor," he said, peering at the emptiness above the white collar, "tell me honestly. Isn't it happening to you, too? Aren't people fading? Can you see me, hear me clearly? Can you?"

There was a moment of silence. Then Harry heard the doctor's voice again.

"Mr. Norman, I can see you perfectly. As a matter of fact, I have been having a little trouble with my own eyes lately, but while I've been sitting in this room talking with you it seems to have cleared up. I can see you perfectly. There is a very small mole under your right eye and you cut yourself on the neck just below your right ear when you shaved this morning. You used a styptic pencil or powder and there is still a faint smudge of white there. Brown spots are beginning to appear on the backs of your hands and you keep looking at them. Does that convince you?"

"I suppose then you think I am crazy." Harry Norman said.

Dr. Suffolk was silent for a long time. Finally he said quietly, "Everybody is crazy, as you put it, in one way or another."

"Well, a vacation in the Maine woods isn't going to cure me!" Harry blurted out in sudden anger. "There's nothing I'd like better, but I've promised my wife we'd go on a cruise. Anyhow, do you know what I think? I think maybe I'm the only one in the world who isn't crazy. I think maybe I'm the only one who is seeing—or not seeing—what is happening. Dr. Suffolk, ever since I came into this room you haven't had

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a head on your shoulders or hands at the ends of your sleeves. I'm alone right here. I don't have to go to Maine. I'm alone anywhere I go."

Driving back to his office, Harry regretted his final outburst and began to panic. *Everyone is daft but me and thee, and sometimes I don't know about thee* . . . Wasn't that kind of thinking a sure symptom of insanity? He became paranoid about the neurologist. He imagined Dr. Suffolk picking up the phone immediately after his departure and calling Dora. *Mrs. Norman, I think your husband needs surveillance, hospitalization* . . . He could see men in white waiting for him at his front door when he got home that night. He imagined shock treatments, electrodes on his head, knives probing into his brain.

By the time he reached his office Harry had made his decision. With the door shut and locked behind him he telephoned his wife.

"Dora, has a Dr. Suffolk called you?"

"No, Harry, but I've been out shopping all afternoon. I was just coming into the house when you rang. Why? Is something wrong?"

"Well, if he calls, tell him I've gone to Maine. Tell him I'm giving it a try. Tell him to let me alone for a week, two weeks, a month—"

"Maine? What do you mean, dear? You know how you hate the no-seeums up there at this time of year. And we were planning that Scandinavian cruise—"

"There won't be any no-seeums," Harry said. Then he began to laugh. He laughed long and loud. "But of course!" he said finally. "There will be—for a while, at least. That's why I'm going—because of the no-seeums!" He laughed again.

"Harry, are you all right?"

"Yes. No. No, I'm not all right. Look, Dora, I've been off my feed lately and I guess Dave's accident this morning got to me more than I realized. Anyhow—"

She gasped.

"Dave's accident? What accident?"

"His finger. He cut it in the new card."

"Oh, is that what happened? He didn't tell me. He came home with a cut on his finger and I put a band-aid on it. It's nothing. He drove to Boston this afternoon to see a movie. Harry, what is wrong with you? You haven't told me. Who is this Dr. Suffolk? What did he say?"

"He said I needed a vacation, so I'm taking one. I'm going to Maine this afternoon, straight from the office. I won't be home. I've got clothes up there and things. I can get there by midnight. I don't want anyone to come up or disturb me or try to reach me by the phone in the village—except, of course, in an emergency. Do you understand?"

"Oh, Harry, wouldn't the Scandinavian cruise be just as good?"

"No."

There was a silence..

"Do you understand, Dora?"

"Of course, dear, but—"

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"Goodbye."

"Goodbye, darling. But Harry—"

IN HIS car Harry Norman turned on the radio. Somebody was talking to somebody about the world's problems, using a lot of big words that meant nothing. He tuned in another station. A singer was moaning unintelligible words. On a third station a man was whispering about irregularity. He turned off the radio.

The first night in his cabin in Maine, Harry slept a long, long time. And it seemed to him he continued partly asleep as he spent what was left of the first day lounging about the place in delicious indolence. He could all but feel his nerves relaxing, all but hear them slackening like violin strings that twang when the pegs are loosened. He did not stray from the cabin until the second day—after another long sleep—and that day he wandered only briefly in the woods before he was overcome by drowsiness and, dropping on a bed of pine needles, slept the afternoon away in the sun. When he ventured outdoors on what he believed was the third day, he came upon a brook and its busy murmur made him realize how silent the woods were around him. No birds sang and there was no sound of insects or animals. Because the day was windless even the pine branches overhead were still.

After that he lost track of time. But he felt no need to calculate the days he spent in the cabin or the woods. He found himself content merely to exist, to float in apathy in the stillness of his surroundings, convinced that he would be happy to continue forever as he was. It seemed to him that with the passage of time his physical self must be fading, as men and women all around him in the city had faded. His body became light and lost sensation. Not only the minor aches and pains of middle-age left him, but also the joyous feeling of being alive. He was not ecstatic in his new state, but simply content with the sense of being bodiless, of floating without substance in silent air. To avoid seeing himself, he turned the bathroom mirror's face to the wall and did not shave.

Harry was not at all surprised when one morning he awoke to find that it was snowing. It had been early June when he had come to the cabin, he remembered—now, he assumed, it had to be at least early October. A half-inch of snow whitened the vinyl roof of his car, parked outside the bedroom window. But as soon as he looked beyond the car he saw that the snow could not be the first of early autumn—it had to be a late snow in spring, for the wildflowers that Dora had transplanted in the yard with great care were in bloom and the few deciduous trees around the house had fresh green leaves. He was not amazed and only wondered idly whether he had slept a whole winter through. Two winters maybe? Three? Or, like Rip Van Winkle, twenty? He put his hand to his face.

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He felt no beard. He was amazed then. Time itself must have stopped, for he was sure that men's beards grew whether they were dead or alive. But if time had stopped—why was it suddenly spring?

He leaped from his bed, ran out into the wet snow. His hands trembled as he opened the door of his car and turned on the radio. Immediately there was the voice again of somebody answering somebody's questions, saying the same things Harry had heard on his drive up to the cabin, the same things, he realized, that he had heard a week before that, when he had been returning from the oculist's office. He tuned in another station and heard the singer moaning apocalyptically. He could not be sure whether or not the song was the same one he had heard before. They all sounded alike to him. On a third station a man was again whispering confidentially about irregularity. Harry shut off the radio and turned the ignition key. The motor started instantly.

IN THE village, five miles from the cabin, Harry saw that the snowfall had slackened and there was no white on the ground. No one was astir in the streets and he kept on going. At the intersection of the town road with the highway cars swished past in both directions—and as he waited for an opening that would allow him to join the procession south and westward toward Massachusetts, he saw that the cars were without drivers; that not only heads and hands were missing but whole bodies, clothing and all. He turned on the radio again. The man was still talking about irregularity; the singer was still moaning; somebody was still not answering somebody's questions. He turned off the radio.

Through an empty landscape, past empty farmhouses, on a highway crowded with empty cars, Harry Norman drove swiftly. At one point he saw a driverless tractor bumping across a field, dragging a hayrake, and he wondered how the machine knew that it was haying time, that it was . . . His thought stopped. He was startled. Why, it must be June again! At another place an unattended drawbridge opened for a crewless trawler coming down a river. If there were no people, he wondered, why was a trawler going out to sea to fish? What would become of the fish that were caught? But of course—there were no fish. After that he thought of his business. If there were no people, what was the use of a mill that made yarn for the purpose of clothing them? But apparently there were no longer any clothes. They, too, had vanished with the living bodies. He glanced down at his own legs, one extended toward the accelerator, the other outstretched idly—but before he could be sure he saw them and was not simply feeling their existence as part of his body below his waist, he heard a police

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siren and, from old habit, slowed, drew off the road and stopped to wait for the riderless motorcycle that pulled up beside him.

"Officer," he shouted at the emptiness above the motorcycle, "what is happening? My radio keeps repeating. There aren't any drivers, Officer—"

There was no answer. The motorcycle leaned crazily without falling, as if the law of gravity as well as time had been suspended and Harry sat still and waited, listening to the chatter of the police radio. Soon there was a traffic ticket in his hand. The motorcycle righted itself and sped on. Harry looked at the date on the ticket. It was June but the rest was so badly scrawled he could not read it. He pulled back on to the road, afraid now to look down at his legs, believing that what he would see—or would not see—might unnerve him.

WHEN Harry came to the first red traffic light at the edge of the town where he lived all cars on the highway stopped and allowed those at the intersection to pass through on their green signal. When the light changed and he failed to start immediately a horn blasted from the line behind him. Machines, too, he thought, could be impatient and ill-mannered on the road, like people.

As he entered the town the street lights came on, illuminating an empty dusk. He had to stop once or twice behind a city bus. Its door folded open. No one got in or out, but the bus waited for several seconds. Then the door shut and the bus moved on. In a shopping center neon lights blinked on and off and he saw a laundromat with machines splashing suds against their windows like the flume at Marblehead. There were no customers in the stores or moving in and out among the parked cars, although he noted that the cars were parked in the usual disorder of such unsupervised lots. Two became involved in a minor accident and he saw a police car approaching the scene.

Harry's home was on the far side of the town and he came to his mill first. It was lighted. The big illuminated clock atop the roof told him the night shift had come on ten minutes before. He parked his car in the office lot and went in. The offices as well as the mill were lighted. The clerical staff would not go home for another three-quarters of an hour. Nobody appeared to be in the big room, but electric typewriters were at work everywhere.

"Hello!" Harry said in his usual general greeting to his employees, but no answer came. He was neither surprised nor dismayed, but moved carefully through the outer office, afraid that he might bump into someone.

As soon as he was in his private office, the door closed behind him, he picked up the telephone and dialed his home.

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"Hello, Dora. I just got back. Is everything all right?"

"Goodbye, darling. But, Harry—"

"I say, Dora. I just got back from Maine. Dora!"

"Goodbye, darling. But, Harry—"

"Yes—"

Dora's voice repeated the words over and over.

"Goodbye, darling. But, Harry—"

Finally he realized they were the last words he had heard her speak on the phone before he left for Maine.

"Dora—"

"Goodbye, darling..."

He held the phone away from his ear and stared at it. The disembodied voice was hollow in mid-air. "Goodbye..."

He dropped the phone to his desk and it lay there repeating Dora's last words insanely. In a panic he went out by the private door of his office and down his private stairs three steps at a time. As he hurried through the mill to the parking lot a part of his mind was aware that the new card had just been turned off and was running down with a whine, and he wondered if something had gone wrong with it. But he did not stop to investigate.

He had forgotten how much he loved Dora. He drove through the homeward-bound traffic like a madman, jumping red lights and stop signs and pulled up in front of his house in the suburbs with a squeal of tires. He did not want Dora to be vanished like everyone else—like himself perhaps. He did not know what to expect when he entered the house. His heart was pounding hard as he leaped up the front steps.

The door opened and Dora stood there to greet him, her face upturned for a kiss. He had forgotten what a beautiful woman she was. Behind her his bearded son stood grinning at him.

"You're late, darling." Dora said. "It's a shame you had to work late today of all days."

Harry could not believe his ears or his eyes. He had thought for a moment that she was fading, as people had faded momentarily in the beginning of his illness or whatever it was. But when she spoke, she was clearly back in focus again.

"I—" he began, not knowing how to go on.

Over Dora's shoulder Dave was saying, "Happy birthday, Dad. Sorry I didn't get down to breakfast this morning. How does it feel to be fifty?" And Dora was smiling up at him, ready for another kiss.

So this was June second, the day before he had gone to see Suffolk, the day before they began the operation of the new carding machine. He looked at Dave's hands—there were no band-aids on his fingers. But of course—the accident happened the next day, June third.

"Come," Dora said. "Our drinks are ready. Dave made them. Soon we'll have dinner. We won't wait for Lucy. She called to say she had to stay for a sorority meeting, but she'll come as soon as she can."

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DURING dinner Dora did not mention the cabin in Maine. But when she brought the birthday cake in from the kitchen, her eyes sparkling above the candles, she said, "Oh, by the way, a Dr. Suffolk's office called this afternoon. Charles Warren has made an appointment with him for you for tomorrow afternoon. Why did Charles do that, Harry? Is something wrong?"

"No," Harry said. "Charles told me I was okay." But as he spoke he was remembering vividly the afternoon session in the neurologist's office, although it seemed like a long time ago. And yet Dora had said the appointment with Suffolk was for "tomorrow."

"Then why this Dr. Suffolk?" Dora said. "Who is he?"

"I don't know. It's a mistake of some kind, I guess." Harry replied—and now he heard an echo in his voice and had the dizzying sensation of *deja vu*. He had said the same thing to Dora once before. In fact, he had come home to this birthday party and eaten this same birthday cake once before, the night before the carding machine was put into operation. Dora had told him then about the appointment with Suffolk and he had evaded her questions, because he had had no intention of keeping the appointment. Until the next morning. Then, when Dave had caught his finger in the new carding machine, Harry had changed his mind.

"Well, I'm glad," Dora said.

At that point Lucy came in the front door, slamming it behind her and calling out, "Happy birthday!" and Harry Norman remembered that, too. He knew that Lucy was going to kiss him and flop down on a chair beside him and say, *I hope you saved me some of your cake, Pop. I skipped dessert at the house. I'm sorry I had to stay for that old meeting.* And that was exactly what Lucy did and said. As she spoke, Harry thought she faded for a moment in the way that people had faded at first, but she quickly came back into focus. She wore blue jeans, with white buttons uselessly and ridiculously sewn down the outside of the fly and her blond hair was in disarray and kept falling over her wide blue eyes like a theater curtain and she was beautiful like her mother and Harry loved her very much.

THAT night, in bed, long after he believed Dora was asleep, Harry Norman lay awake, puzzled. He was remembering Dave's near tragedy beside the carding machine and the visit to Suffolk's office and the long stay in the cabin in Maine and the trip home with all life around him completely vanished and he was sure those experiences were real. He was sure of it. It had all happened, those things and that *other* fiftieth birthday dinner just like the one he had had tonight. And it had been real, too, when he returned to the plant from Maine only a few hours ago and

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there was no one visible in the office. And he had heard Dora's voice on the phone saying the same things she had said a long time before. He was sure. But Dora had been very real here in bed with him tonight too, only a short while ago. And yet at dinner neither she nor Dave had seemed to have any recollection of the accident in the mill or his phone call or his long absence in Maine. Nor was there anything in their manner that made him think they had the experience of *deja vu* that had made him dizzy at the birthday dinner.

Dora startled him then by speaking in the dark.

"Oh, Harry, darling, I forgot to tell you. There was another call from the plant just before you came home tonight, while you were on the way home, I guess. It was the mill foreman. He said the new carding machine was all set up and ready to be put in operation tomorrow morning."

And Harry was sure Dora had said *that* before, that *other* night, after the birthday dinner and after they had made love and he had thought her asleep at his side.

"Harry," Dora continued, "why don't you invite Dave down to the mill tomorrow to see them start the machine?"

And she had said that too!

Suddenly Harry was no longer puzzled. He was convinced that it was the machine, the new carding machine, something alien at work in the machine. It had to be. His "illness" had begun on the day the machine was delivered to the mill, when the salesman in his office doorway with the hank of red yarn had seemed to fade for a moment. That had been the first time. And then, on the day they put the card into operation, Dave had become completely invisible and Harry had pushed the boy accidentally against the machine and...

...and tonight, he remembered, in the mill, he had been aware that they were turning off the machine—it had been running down with a whine.

It had to be the machine. For a reason that Harry could not understand, the carding machine had given him a glimpse of what was going to happen to him, what some day was going to happen to everyone on Earth—when people everywhere would close their senses and their minds and concerns to reality and to each other and not give a damn. But now, for a reason also beyond his comprehension, it was giving him a reprieve by breaking down and stopping and thus starting time over again at the day before Dave was hurt and everyone vanished. Harry was no longer puzzled. He was sure. But now, for the first time, he was frightened.

"Why don't you do that, Harry?" Dora said in the dark. "Why don't you invite Dave to the mill tomorrow to see the machine started?"

"I'll have to think about it," Harry said. And Dora went to sleep then, but Harry did not. ★

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NOVELETTE

A SUPPLIANT IN SPACE

ROBERT SHECKLEY

To become an outcast was all that the alien wanted. Unfortunately, he had space, and spacemen, to contend with!

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I

DETRINGER had been banished from his home planet of Ferlang for "acts of incredible grossness"—he had sucked his teeth insolently during the Meditation Frolic and had switched his tail widdershins when the Regional Grand Ubiquitor condescended to spit at him.

These impertinences would normally have earned him no more than a few dozen years of Plenary Ostracism. But Detringer had aggravated his offenses by Willful Disobedience during Godmemory Meeting, at which time he had persisted in audibly reminiscing upon certain of his rather unsavory sexual exploits.

His final asocial act was unprecedented in the recent history of Ferlang: he had meted out Overt Malevolent Violence upon the person of a Ukanister, thus performing the first act of Open Public Aggression since the primitive era of the Death Games.

This last repulsive act, resulting in minor bodily injury but major ego damage to the Ukanister, earned Detringer the supreme punishment of Perpetual Banishment.

Ferlang is the fourth planet from its sun in a fifteen-planet system situated near an edge of the galaxy. Detringer was taken deep into the void between galaxies via starship and set adrift in a tiny, underpowered Sportster. He was voluntarily accompanied by his loyal mechanical servant, Ichor.

Detringer's wives—gay, flighty Maruskaa, tall, thoughtful Gwenkifer and floppy-eared, irrepressible Uu—all divorced him in a solemn Act of Eternal Revulsion. His eight children performed the Office of Parental Repudiation—though Deranie, the youngest, was heard to mutter afterward, "I don't care what you did, Daddy, I still love you."

Detringer was not to be afforded the comfort of knowing this, of course. Cast loose upon the infinite sea of space, the inadequate energy systems of his tiny craft inexorably ran down. He came to know hunger, cold, thirst and the continual throbbing headache of oxygen-deprivation as he voluntarily put himself upon stringent rations. The immense deadness of space spread on all sides of him, broken only by the merciless glare of distant stars. He had turned off the Sportster's engines immediately—he had seen no use in wasting its small fuel capacity in the intergalactic void that taxed the resources of the enormous starships. He would save his fuel for planetary maneuvering—if that unlikely opportunity should ever be vouchsafed him.

Time was a motionless black jelly in which he was encased. Deprived of its familiar moorings, a lesser mind must have cracked. But it was a measure of his being that, instead of giving in to the despair whose objective correlatives were all around him, he rallied, forced himself to take an interest in the minutest routines of

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the dying ship, gave a concert every "night" for his tone-deaf servant Ichor, performed calisthenics, practiced High-speed Meditation, erected elaborate auto-sexual rituals as set forth in the Solitude Survival Book, and in a hundred ways diverted himself from the crushing realization of his own almost certain death.

After an interminable period the character of space changed abruptly. The doldrums gave way to unsettled conditions. There were elaborate electrical displays, presaging new peril. At last a linestorm hurtled upon him along a narrow front, caught up the Sportster and swept it pellmell into the heart of the void.

The very inadequacy of the little spaceship served to preserve it. Unresistingly driven by the storm's front, the ship survived by yielding—and when the storm had run its course the ship's hull still preserved its integrity.

Little need be said about the ordeal of the occupants at this time, except that they survived. Detringer experienced a period of unconsciousness. Then he opened his eyes and stared groggily around him. After that he looked out through the spaceports and studied his navigational instruments.

"We've completely crossed the void," he told Ichor. "We are approaching the outer limits of a planetary system."

Ichor raised himself on one aluminum elbow and asked, "Of what type is the sun?"

"It is an O type," Detringer said.

"Praise be to God's Memory," Ichor intoned, then collapsed, due to discharged batteries.

THE last currents of the storm subsided before the Sportster crossed the orbit of the outermost planet, 19th out from the sturdy, medium-sized life-giving O-type sun. Detringer recharged Ichor from the ship's accumulators, although the mechanical protested that the current might better be saved for a possible ship's emergency.

This emergency came sooner than Detringer had imagined. His instrument reading had shown that the fifth planet out from the sun was the only one that could support Detringer's life-requirements without the assistance of imported artificialities. But it was too far away for the ship's remaining fuel and now space was doldrum-calm again, affording no impetus to aid them toward their goal.

One course of action would be to sit tight, wait and hope that a stray inbound current would come their way, or even another storm. This plan was admittedly conservative. It bore the danger that no current or storm would come during the short period in which they could sustain themselves on the ship's resources. Additionally, there was the risk that if a current or storm should arise it would bear them in an unpromising direction.

Still, there were risks no matter what course of action was taken.

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Characteristically, Detringer chose the more enterprising and perhaps more dangerous plan. Plotting the most economical course and speed, he set forth to cover whatever portion of the journey his ship's fuel would allow, prepared to trust to Providence thereafter.

By painstaking piloting and hand-metering of the fuel he managed to come within two hundred million miles of his destination. Then Detringer had to shut down the engines, leaving himself only a scant hour's worth of fuel for intra-atmospheric maneuvering.

The Sportster drifted through space, still moving toward the fifth planet, but so slowly that a thousand years would barely suffice to bring it within the planet's atmospheric limits. By a very slight effort of the imagination, the ship could be considered a coffin and Detringer its premature occupant. But Detringer refused to dwell upon this. He began again his regime of calisthenics, concerts, High-speed Meditation and auto-sexual rituals.

Ichor was somewhat shocked by all this. Himself of an orthodox turn of mind, he gently pointed out that Detringer's acts were inapropos to the situation and therefore insane.

"You're quite right, of course," Detringer replied cheerfully. "But I must remind you that Hope, even though judged incapable of fulfillment, is still considered one of the Eight Irrational Blessings and therefore (according to the Second Patriarch) of a higher order of magnitude than the derived Sanity Injunctions."

Confuted by scripture, Ichor gave his grudging assent to Detringer's practices and even went so far as to sing a hymn in harmony with him (with results as ludicrous as they were cacophonous.)

Inexorably their energy ran down. Half- and then quarter-rations impaired their efficiency and brought them near the point of complete dysfunction. In vain did Ichor beg his master's permission to drain his own personal batteries into the ship's chilly heaters.

"Never mind," said Detringer, shuddering with cold. "We'll go out together as equals, in possession of what senses we've got, if we go out at all—which I seriously doubt despite impressive evidence to the contrary."

Perhaps nature is influenced by temperament. Surely only for Detringer would she have obliged by sending a strong inbound current just when the ship's energy resources had dwindled to no more than memories.

The landing itself was simple enough for a pilot of Detringer's skill and luck. He brought down the ship, light as a windblown seed, upon the green and inviting surface of the fifth planet. When he shut down the engines for the last time there were some thirty-eight seconds of fuel remaining.

Ichor fell to his ferrominium knees and praised the Godmemory that had remembered to bring them to this place of refuge. But Detringer said,

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"Let's see if we can live here before we go maudlin with thanks."

The fifth world proved hospitable enough. All of the necessities of life could be found with moderate effort, though few of the amenities. Escape was impossible: only an advanced technological civilization could produce the complex fuel needed for the ship's engines. And a brief aerial survey had shown that the fifth planet, although a picturesque and inviting world, harbored no civilization—nor did it even give any sign of being inhabited by intelligent beings.

By a simple cross-wiring procedure, Ichor prepared himself for the prospect of spending the rest of his lifespan in this place. He advised Detringer similarly to accept the inevitable. After all, he pointed out, even if they did somehow obtain fuel, where would they go? The odds against their finding an advanced planetary civilization, even with a well-equipped exploration ship at their disposal, were astronomical. In a small vessel like the Sportster the attempt would be tantamount to suicide.

Detringer was unimpressed by this reasoning. "Better to search and die," he said, "than vegetate and live."

"Master," Ichor pointed out respectfully, "that is heresy."

"I suppose it is," Detringer said cheerfully. "But it is how I feel. And my intuition tells me that something will turn up."

Ichor shuddered and was glad for the sake of his master's soul that, despite Detringer's hopes, he was to receive the Unction of Perpetual Solitude.

CAPTAIN Edward Makepeace Macmillan stood in the main control room of the exploration ship *Jenny Lind* and scanned the tape as it came out of the 1100 Series Coordinating Computer. It was apparent that the new planet presented no dangers within the measuring ability of the ship's instruments.

Macmillan had come a long way to reach this moment. A brilliant life-sciences major at the University of Taos, Macmillan had gone on to do graduate work in Nucleonic Theory and Control. His doctoral thesis, titled *Some Preliminary Notes on Certain Considerations Concerning the (Projected) Science of Interstellar Maneuvering,* had been enthusiastically accepted by his committee and had later been successfully published for the general public under the title, *Lost and Found in Deepest Space.* That, plus his long article in *Nature,* titled, *The Use of Declension Theory in Spacecraft Landing Modalities,* had made him the only possible choice to captain America's first interstellar ship.

He was a tall, handsome, strongly built man. His hair was prematurely flecked with gray, belying his thirty-six years. His reactions concerning navigation were quick and sure and his instinct for the integrity of his ship was awesome.

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Less awesome were his dealings with men. Macmillan was cursed with a certain shyness, a diffidence toward others, a knowledge of dubiety that sapped the decision-making process and that, however admirable it might be in a philosopher, was a potential weakness in a leader of men.

A knock came at his door and Colonel Kettelman entered without bothering to be asked. "Looks good down there, hah?" he said.

"The planetary profile is quite favorable," Macmillan said stiffly.

"That's fine," Kettelman said, staring uncomprehendingly at the computer tape. "Anything interesting about the place?"

"A great deal," Macmillan said. "Even a long-distance survey has shown what might well be some unique vegetable structures. Additionally, our bacteria scan shows some anomalies, which—"

"I didn't mean that kind of stuff," Kettelman said, evincing the natural indifference a career soldier sometimes feels for bugs and plants. "I meant important stuff like alien armies and space fleets and like that."

"There is no sign of any civilization down there," Macmillan said. "I doubt we will even find traces of intelligent life."

"Well, you can never tell," Kettelman said hopefully. He was a stocky, barrel-chested and unbending man. He was a veteran of the American Assistance Campaigns of '34 and had fought as a major in the jungles of western Honduras in the so-called United Fruit War, emerging as a lieutenant colonel. He had received his full colonelcy during the ill-fated New York Insurrection, at which time he had personally led his men in storming the Subtreasury Building and then had held down the 42nd Street Line against the crack Gay Battalion.

Utterly fearless, known as a soldier's soldier, possessing an impeccable combat record, wealthy in his own right, a friend of many U.S. Senators and Texas millionaires and not unintelligent, he had won the coveted appointment of Commandant of Military Operations aboard the *Jenny Lind.*

Now he awaited the moment when he would lead his combat team of twenty Marines onto the surface of the fifth planet. The prospect hugely excited him. And, despite the instrument readings, Kettelman knew that anything might be down there waiting to strike and maim and kill—unless he did so first, as he planned to do.

"There is one thing," Macmillan said. "We have detected a spacecraft on the surface of the planet."

"Ah," Kettelman said. "I knew there'd be something. You spotted only one ship?"

"Yes. A small one, displacing less than a twentieth the volume of our craft and apparently unarmed."

"That's what they'd like you to believe, of course," said Kettelman. "I wonder where the others are."

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"What others?"

"The other alien spaceships and crews and ground-to-space weapons systems and all the rest of it, of course."

"The presence of one alien spacecraft does not logically imply any other alien spacecraft," Captain Macmillan said.

"No? Listen, Mac, I learned my logic in the jungles of Honduras," Kettelman said. "The rule there was that if you found one runt with a machete you could be sure of finding another fifty or so hiding in the bushes, waiting to cut your ears off if you gave them a chance. You could get killed if you waited around for abstract proofs."

"The circumstances were somewhat different," Captain Macmillan pointed out.

"So what does that matter?"

Macmillan winced and turned away. Talking with Kettelman was painful for him and he avoided it as much as he could. The colonel was a disputatious individual, stubborn, easily driven to wrath and possessed of many positive opinions, most of which were founded upon a bedrock of nearly invincible ignorance. The captain knew that the antipathy between himself and Kettelman was mutual. He was well aware that the colonel considered him an indecisive and ineffective person except perhaps in his special scientific areas.

Luckily, their areas of command were sharply defined and delineated. Or had been to date.

II

DETRINGER and Ichor stood in a clump of trees and watched as the large alien spacecraft settled down to a faultless landing.

"Whoever is piloting that ship," Detringer said, "is a master pilot beyond compare. I would like to meet such a being."

"Doubtless you will get your chance," Ichor said. "It is surely no accident that, given the entire surface of this planet to choose from, they have elected to put down almost beside us."

"They must have detected us, of course," Detringer said. "And they have decided to take a bold line—exactly as I would do, given their position."

"That makes sense," Ichor said. "But what will you do, given *your* position?"

"Why, I'll take a bold line, of course."

"This is a historic moment," Ichor said. "A representative of the Ferland people will soon meet the first intelligent aliens our race has ever encountered. How ironic that this opportunity should be vouchsafed to a criminal!"

"The opportunity, as you call it, was forced upon me. I assure you that I did not seek it. And by the way—I think we will say nothing about my little differences with the Ferlang authorities."

"You mean you're going to lie?"

"That is a harsh way of putting

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it," Detringer said. "Let us say that I am going to spare my people the embarrassment of having a criminal as their first emissary to an alien race."

"Well—I suppose that will be all right," Ichor said.

Detringer looked hard at his mechanical servant. "It seems to me, Ichor, that you do not entirely approve of my expediences."

"No, sir, I do not. But please understand: I am faithful to you without cavil. I would unhesitatingly sacrifice myself for your welfare at any moment. I will serve you unto death—and beyond, if that is possible. But loyalty to a person does not affect one's religious, social and ethical beliefs. I love you, sir—but I cannot approve of you."

"Well, then, I am warned," Detringer said. "And now back to our alien friends. A port is opening. They are coming out."

"Soldiers are coming out," Ichor said.

The new arrivals were bipedal and also had two upper limbs. Each individual had only one head, one mouth and one nose, as had Detringer himself. They bore no visible tails or antennae. They were obviously soldiers to judge by the equipment they carried. Each individual was heavily laden with what could be deduced to be projectile weapons, gas and explosive grenades, beam projectors, short-range atomics and much else besides. They wore personal armor and their heads were encased in clear plastic bubbles. There were twenty of them so equipped and one, obviously their leader, who had no visible weaponry. He carried a sort of whippy stick—probably a badge of office—with which he tapped himself on the upper left pedal appendage as he marched at the head of his soldiers.

The soldiers advanced, well spread out, taking momentary concealment behind natural objects and posturally demonstrating an attitude of extreme suspicion and wariness. The officer walked directly forward without taking cover, his mien obviously portraying nonchalance, bravado or stupidity.

"I don't think we should skulk around these bushes any longer," Detringer said. "It is time for us to go forward and meet them with the dignity that befits an emissary of the Ferlang people."

He stepped forward immediately and strode toward the soldiers, followed by Ichor. Detringer was magnificent at that moment.

EVERYBODY on the *Jenny Lind* knew about the alien spacecraft only a mile away. So it should have proven no surprise that the alien ship turned out to have had on board an alien who was at that moment advancing boldly to meet Kettelman's marines.

But it did prove a surprise. No one was prepared to meet a genuine, honest-to-god, weird-looking alive-and-kicking alien. The occasion

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opened up too many imponderables. To name just one—what do you say when you finally meet an alien? How do you live up to the awesome historic quality of the moment? Whatever you come up with is going to sound like, *Dr. Livingston, I presume?* People are going to laugh at you and your words—pompous or banal—for centuries. Meeting an alien has enormous potential for embarrassment.

Both Captain Macmillan and Colonel Kettelman were feverishly rehearsing opening lines and rejecting them and half-hoping that the C31 Translating Computer would blow a transistor. The Marines were praying, *Jesus, I hope he don't try to talk to me.* Even the ship's cook was thinking, *Christ, I suppose first thing out he'll want to know all about what we eat.*

But Kettelman was in the lead. He thought, *To hell with this—I'm not going to be the first to talk to him.* He slowed down to let his men go ahead of him. But his men stopped in their tracks, waiting for the colonel. Captain Macmillan, standing just behind the marines, also stopped and wished that he hadn't worn his full-dress uniform, complete with decorations. He was the most resplendent man on the field and he just knew that the alien was going to walk straight over to him and begin talking.

All the Terrans stood still. The alien continued to advance. Embarrassment gave way to panic in the Terran ranks. The marines looked at the alien and thought, *Jesus, what's happening?* They wavered, obviously on the verge of flight. Kettelman saw this and thought, *They are going to disgrace the corps and me!*

The realization sobered him. Suddenly he remembered the newsmen. Yes, the newsmen! Let the newsmen do it—that was what they were paid for.

"Platoon, halt," he called, then set his men at port arms.

The alien stopped, perhaps to see what was going on.

"Captain," Kettelman said to Macmillan, "I suggest that for this historic moment we unleash—I mean break out—the newsmen."

"An excellent suggestion." Captain Macmillan said and gave the order to take the newsmen out of stasis and bring them forth immediately.

Then everybody waited until the newsmen came.

THE newsmen were laid out in a special room. A sign on the door read: STASIS—No Admittance Except to Authorized Personnel. Hand-lettered below were the words: Not to Be Awakened Except for Top Story.

Within the room, each stretched out in his own capsule, were four newsmen and one newswoman. They had all agreed that it would be a waste of subjective time for them to live through the uneventful years required for the *Jenny Lind* to reach

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any destination at all. So they had all agreed to go into stasis freeze, with the understanding that they would be resuscitated immediately if anything newsworthy occurred. They left the decision as to what constituted news to Captain Macmillan, who had worked as a reporter on the *Phoenix Sun* during his junior and sophomore years at the University of Taos.

Ramon Delgado, a Scots engineer with a strange life story, received the order to wake up the newspeople. He made the necessary adjustments in their individual life-support systems. In fifteen minutes they were all somewhat groggily conscious and demanding to know what was going on.

"We've landed on a planet," Delgado said. "It's an Earth-type place, but seems to support no civilization and no indigenous intelligent beings."

"You woke us up for that?" asked Quebrada of the Southeastern News Syndicate.

"There's more," Delgado said. "There is an alien spaceship on this planet and we have contacted an intelligent alien."

"That's more like it," said Millicent Lopez of *Woman's Wear Daily* and others. "Did you happen to notice what this alien is wearing?"

"Could you ascertain how intelligent he is?" asked Mateos Upmann of the *N.Y. Times* and the *L.A. Times*.

"What has he said so far?" asked Angel Potemkin of NBC-CBS-ABC.

"He hasn't said anything," Engineer Delgado said. "Nobody has spoken to him yet."

"Do you mean to say," said E. K. Quetzala of the Western News Syndicate, "that the first alien ever encountered by the people of Earth is standing out there like a dope and nobody is interviewing him?"

The newspeople rushed out, many of them still trailing tubes and wires, pausing only to pick up their recorders from the Reporters' Ready Room. Outside, blinking in strong sunlight, three of them picked up the C31 Translating Computer. They all rushed forward again, brushing Marines aside, and surrounded the alien.

Upmann turned on the C31, took one of its microphones and handed another to the alien, who hesitated a moment, then took it.

"Testing, one two, three," Upmann said. "Did you understand what I said?"

"You said, 'Testing, one two, three,'" Detringer said and everyone gave a sigh of relief for the first words had finally been spoken to Earthman's first alien and Upmann was going to look like a real idiot in the history books. But Upmann didn't care what he looked like as long as he was *in* the history books, so he went right on interviewing. And the others joined in.

Detringer had to tell what he ate, how long and how often he slept, describe his sex life and its deviations from the Ferlang norm, his first impressions of Earthmen, his per-

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sonal philosophy, say how many wives he had and how he got along with them, how many children he had, how it felt to be him. He had to name his occupation, his hobbies, detail his interest or lack of interest in gardening, his recreations. He had to state whether he ever got intoxicated and in what manner, describe his extramarital sexual practices, if any, and what sort of sports he engaged in. He had to give his views on interstellar amity between intelligent races, discuss the advantages and/or disadvantages of having a tail, and much more.

Captain Macmillan, now feeling a little ashamed of himself for neglecting his official duties, came forward and rescued the alien, who was bravely trying to explain the inexplicable and making heavy work of it.

Colonel Kettelman came too for he was, after all, in charge of security and it was his duty to penetrate deeply into the nature and intentions of the alien.

There was a short clash of wills between these two officials concerning who should have the first meeting with Detringer, or whether it should be held jointly. It was finally decided that Macmillan, as symbolic representative of the Earth peoples, should meet first with the alien. But it was understood that this would be a purely ceremonial meeting. Kettelman would meet Detringer later and it was understood that that meeting would be action-oriented.

That solved matters nicely and Detringer went off with Macmillan. The marines returned to the ship, stacked their arms and went back to polishing their boots.

Ichor stayed behind. The news representative from Midwest News Briefs had grabbed him for an interview. This representative, Melchior Carrera, was also commissioned to do articles for *Popular Mechanics, Playboy, Rolling Stone* and *Automation Engineers' Digest.* It was an interesting interview.

DETRINGER'S talk with Captain Macmillan went very well. They shared relativistic outlooks on most things, both possessed natural tact and each was willing to attempt a sympathetic understanding of a viewpoint not his own. They liked each other and Captain Macmillan felt with some astonishment that Detringer was less alien to him than was Colonel Kettelman.

The interview with Kettelman, which followed immediately, was a different matter. Kettelman, after brief courtesies, got right down to business.

"What are you doing here?" he asked.

Detringer had been prepared for the necessity of explaining his situation. He said, "I am an advance scout for the spatial forces of Ferlang. I was blown far off my course by a storm and put down here when my fuel ran out."

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"So you're marooned."

"I am indeed. Temporarily, of course. As soon as my people can spare the necessary equipment and personnel and they will send out a relief ship to pick me up. But that could take quite a while. So if you wouldn't mind letting me have a little fuel I would be deeply grateful."

"Hmmm," said Colonel Kettelman.

"I beg your pardon?"

"Hmmm," said the C31 Translating Computer, "is a polite sound made by Terrans to denote a short period of silent cogitation."

"That's a lot of doubletalk," Kettelman said. "'Hmmm' doesn't mean anything at all. You say that you need fuel?"

"Yes, Colonel, I do," Detringer said. "From various external signs I believe that our propulsion systems are comparable."

"The propulsion system of the *Jenny Lind*—" began the C31.

"Wait a minute, that's classified," Kettelman said.

"No, it's not," said the C31. "Everyone on Earth has been using the system for the last twenty years and it was officially declassified last year."

"Hmmm," said the colonel and looked unhappy as the C31 explained the ship's propulsion system.

"Just as I thought," Detringer said. "I won't even have to modify the formula. I can use your fuel just as it is. If you can spare any, that is."

"Oh, there's no difficulty there," Kettelman said. "We've got plenty. But I think we have a few things to talk over first."

"Like what?" Detringer said.

"Like whether it would serve the interests of our security to give you the fuel."

"I fail to see any problem," Detringer said.

"It should be obvious. Ferlang is obviously a highly advanced technological civilization. As such, you pose a potential threat to us."

"My dear Colonel, our planets are in different galaxies."

"So what? We Americans have always fought our wars as far from home as possible. Maybe you Ferlangs do the same. What does distance matter, as long as you can get there at all?"

Detringer controlled his temper and said, "We are peaceful people, defense-minded and deeply interested in interstellar amity and cooperation."

"So you say," Kettelman said. "But how can I be sure?"

"Colonel," Detringer said, "aren't you being a little bit—" he fumbled for the right word, chose one that could not be literally translated—"urmuguahtt?"

The C31 supplied, "He wants to know if you aren't being a little bit paranoid."

Kettelman bristled. Nothing got him angrier than when people implied he was paranoid. It made him feel persecuted.

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"Don't get me sore," he said ominously. "Now, suppose you tell me why I shouldn't order you killed and every vestige of your ship destroyed in the interests of Earth security. By the time your people got here, we'd be long gone and the Ferlangers or whatever you call yourselves wouldn't know a damned thing about us."

"That would be a possible course for you," Detringer said, "were it not for the fact that I radioed my people as soon as I saw your ship and continued my broadcast right up to the moment I came out to meet you. I told Base Command all I could about you, including an educated guess as to the type of sun required for your physiques and another guess as to the direction your world lies in, based upon ion-trail analysis."

"You are a clever fellow, aren't you?" Kettelman said peevishly.

"I also told my people that I was going to request some fuel from your obviously copious stores. I suppose they would account it an extremely unfriendly act if you refused me this favor."

"I never thought of that," Kettelman said. "Hmmm. I *am* under orders not to provoke an interstellar incident—"

"So?" Detringer asked and waited.

There was a long, uncomfortable silence. Kettelman hated the thought of giving what amounted to military assistance to a being who might be his next enemy. But there seemed no way around it.

"All right," he said at last. "I'll send the fuel over tomorrow."

Detringer thanked him and talked quite openly and frankly about the enormous size and complex weaponry of the Ferlang interspatial armed forces. He exaggerated somewhat. In fact, not one word did he say that was true.

III

EARLY in the morning a human came over to Detringer's ship carrying a canister of fuel. Detringer told him to set it down anywhere, but the human insisted upon carrying it personally through the Sportster's tiny cabin and pouring it into the fuel tank. Those were the colonel's orders, he said.

"Well, that's a beginning," Detringer said to Ichor. "Only about sixty more cans to go."

"But why are they sending them one at a time?" Ichor asked. "Surely that is inefficient."

"Not necessarily. It depends what Kettelman is hoping to achieve."

"What do you mean?" Ichor asked.

"Nothing, I hope. Let's wait and see."

They waited and long hours passed. At last evening came, but no more fuel had been sent over. Detringer walked over to the Terran ship. Brushing the reporters aside, he requested an interview with Kettelman.

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An orderly led him to the colonel's quarters. The room was simply furnished. On the walls were a few mementos—two rows of medals mounted on black velvet in a solid gold frame, a photograph of a Doberman Pinscher with fangs bared, and a shrunken head taken during the Seige of Tegulcigapa. The colonel himself, stripped down to khaki shorts, was squeezing a rubber ball in each hand and one in each foot.

"Yes, Detringer, what can I do for you?" Kettelman asked.

"I came to ask you why you have stopped sending the fuel."

"Have you, now?" Kettelman released all the rubber balls and sat down in a leather-backed director's chair with his name stenciled on it. "Well, I'll answer that by asking you a question. Detringer, how did you manage to send radio messages to your people without any radio equipment?"

"Who says I have no radio equipment?" Detringer asked.

"I sent Engineer Delgado over with that first can of fuel," Kettelman said. "He was under orders to see what sort of rig you were using. He told me that there were no signs of radio equipment in your ship. Engineer Delgado is an expert on that sort of thing."

"We miniaturize our equipment," Detringer said.

"So do we. But it still requires a lot of hardware, which you don't seem to have. I might add that we have been listening on all wavelengths ever since we came close to this planet. We have detected no transmissions of any kind."

Detringer said, "I can explain all of that."

"Please do so."

"It's simple enough. I lied to you."

"That much is evident. But it explains nothing."

"I wasn't finished. We Ferlangi have our security too, you know. Until we know more about you, it is only common sense to reveal as little about ourselves as possible. If you were gullible enough to believe that we relied on so primitive a system of communication as radio, it might be a small advantage for us in case we ever met again under unfriendly circumstances."

"So how do you communicate? Or don't you?"

Detringer hesitated, then said, "I suppose it doesn't matter if I tell you. You were bound to find out sooner or later that my species is telepathic."

"Telepathic? You are claiming that you can send and receive thoughts?"

"That is correct," Detringer said.

Kettelman stared at him for a moment, then said, "Okay, what am I thinking now?"

"You're thinking that I'm a liar," Detringer said.

"That's right," Kettelman said.

"But that was obvious and I didn't learn that by reading your mind. You see, we Ferlangi are telepathic only

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among members of our species."

"Do you know something?" Colonel Kettelman said. "I still think you're a damned liar."

"Of course," Detringer said. "The question is, can you be sure?"

"I'm damned sure," Kettelman said grimly.

"But is that good enough? For the requirements of your security, I mean? Consider—if I am telling the truth, then yesterday's reasons for your giving me fuel are equally valid today. Do you agree?"

The colonel nodded grudgingly.

"Whereas, if I'm lying and you give me fuel, no harm will be done. You will have helped a fellow being in distress, thus putting my people and myself in your debt. That would be a promising way to begin the relationship between us. And, with both our races pushing out into deep space, it is inevitable that our people will meet again."

"I suppose it is inevitable," Kettelman said. "But I can maroon you here and postpone official contact until we are better prepared."

"You can try to postpone the next contact," Detringer said. "But it still could happen at any time. Now is your chance to make a good beginning. The next time might not be so auspicious."

"Hmmm," Kettelman said.

"So there are good reasons for helping me even if I am lying," Detringer said. "And remember, I may be telling the truth. In that case, your refusing me fuel would have to be considered an extremely unfriendly act."

The colonel paced up and down the narrow room, then whirled and in a fury said, "You argue too damned well!"

"It is just my good luck," Detringer said, "that logic happens to be on my side."

"He's right, you know," said the C31 Translating Computer. "About the logic, I mean."

"Shut up!"

"I thought it was my duty to point that out," the C31 said.

The colonel stopped pacing and rubbed his forehead. "Detringer, go away," he said wearily. "I'll send over the fuel."

"You won't regret it," Detringer said.

"I regret it already," Kettelman said. "Now please go away."

DETRINGER hurried back to his ship and told Icher the good news. The robot was surprised. "I didn't think he would do it," he said.

"He didn't think so, either," Detringer said. "But I managed to convince him." He told Ichor of his conversation with the colonel.

"So you lied," Ichor said sadly.

"Yes. But Kettelman knows I lied."

"Then why is he helping you?"

"Out of fear that I just might be telling the truth."

"Lying is both a sin and a crime, Master."

"But letting myself stay in this

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place is something worse." Detringer said. "It would be gross stupidity."

"That is not an orthodox view."

"Perhaps it would be just as well for us not to discuss orthodoxy any longer," Detringer said. "Now I've got some work to do. Suppose you go out and see if you can find me anything to eat."

The servant silently obeyed and Detringer sat down with a star atlas in hope of figuring out where to go, assuming he could go anywhere.

MORNING came, bright and resplendent. Ichor went over to the Earth ship to play chess with the robot dishwasher with whom he had struck up an acquaintance the previous day. Detringer waited for the fuel.

He was not entirely surprised when noon came and no fuel had been sent over. But he was disappointed and dejected. He waited another two hours, then walked over to the *Jenny Lind*.

He had been expected, so it seemed, for he was led at once to the officers' lounge. Colonel Kettelman was seated in a deep armchair. An armed marine flanked him on each side. The colonel's expression was stern, but there was a nimbus of malevolent joy playing about his battered features. Seated nearby was Captain Macmillan, his handsome face unreadable.

"Well, Detringer," the colonel said, "What is it this time?"

"I came to ask about the fuel you promised me," Detringer said. "But I see now that you had no intention of keeping your word."

"You got me all wrong," the colonel said. "I had every intention of giving fuel to a member of the Armed Forces of Ferlang. But what I see before me is not the person at all."

"Whom do you see, then?" Detringer asked.

Kettelman stifled an ugly grin. "Why, I see a criminal, so judged by his own people's highest court. I see a felon whose evil acts were considered unprecedented in the annals of modern Ferlang jurisprudence. I see a being whose unspeakable behavior earned him the most extreme sentence known to his people—namely, Perpetual Banishment into the depths of space. That's whom I see standing before me. Or do you deny it?"

"For the moment, I neither deny nor affirm," Detringer said. "I would first like to know the source of your remarkable information."

Colonel Kettelman nodded to one of the marines. The soldier opened a door and led in Ichor, followed by the robot dishwasher.

The mechanical servant burst out, "Oh Master! I told Colonel Kettelman the true account of the events leading up to our exile on this planet. And now I have doomed you! I beg the privilege of immediate auto-destruct in partial reparation for my disloyalty."

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Detringer was silent, thinking furiously. Captain Macmillan leaned forward and asked, "Ichor, why did you betray your master?"

"I had no choice, Captain!" the miserable mechanical cried. "Before the Ferlang authorities allowed me to accompany my master they imprinted certain orders upon my brain. These they reinforced with devious circuitry."

"What were the orders?"

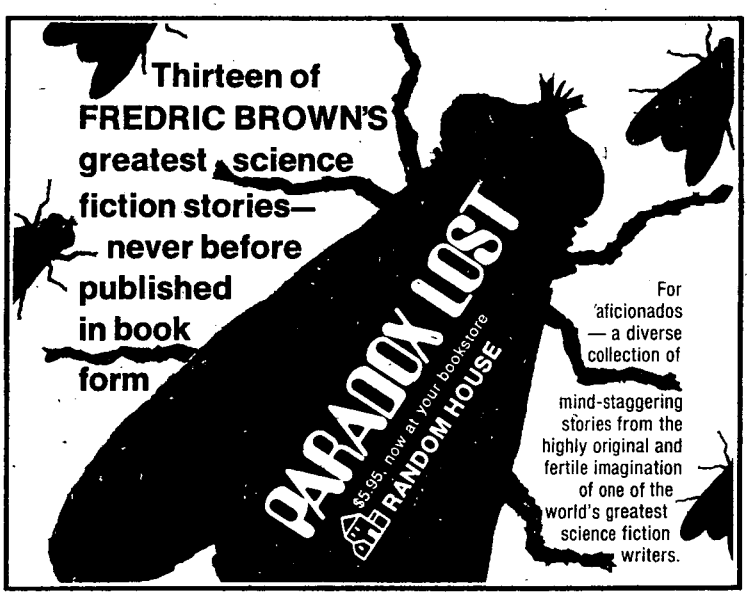
"They pertained to the covert role of policeman and gaoler which the authorities forced upon me. They demanded that I take appropriate action, should Detringer, by some miracle, find himself able to escape his just desserts."

The robot dishwasher burst out, "He told me all about it yesterday, Captain. I begged him to resist his orders. It all seemed to me rather a bad show, sir, if you know what I mean."

"And indeed, I did resist for as long as I could," Ichor said. "But as my masters' chances for escape became imminent my compulsion to prevent it became more imperative. Only an immediate excision of the special circuits could have stopped me."

The robot dishwasher said, "I offered to try to operate on him, sir, though the only tools in my possession were spoons, knives and forks."

Ichor said, "I would have gladly undergone the operation—indeed, I wanted to destroy myself, thus pre-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venting any word from escaping my involuntarily treacherous voicebox. But the Ferlang authorities had considered these possibilities, and I was under compulsion not to allow myself willingly to be tampered with or destroyed until I had done the State's bidding. Yet I resisted until this morning and then, my strength drained away through value-conflict, I came to Colonel Kettelman and told all."

"And there you have the whole sordid story," Kettelman said to the captain.

"Not quite all," Captain Macmillan said quietly. "What exactly were your crimes, Detringer?"

Detringer recited them in a steady voice—his Acts of Incredible Grossness, his offense of Willful Disobedience and his final Act of Overt Malevolent Violence. Ichor nodded in forlorn agreement.

"I think we have heard enough," Kettelman said. "I will now pronounce judgment upon this case."

"One moment, Colonel," said Captain Macmillan. He turned to Detringer. "Are you now, or have you at any time been, a member of the Armed Forces of Ferlang?"

"No," Detringer said and Ichor corroborated his statement.

"Then this being is a civilian," Captain Macmillan said, "and must be judged and sentenced by a civilian authority rather than a military one."

"Well, I don't know about that," Kettelman said.

"The position is quite clear," Captain Macmillan said. "He is a civilian under sentence by a civilian court. No state of war exists between his people and ours. His case, therefore, is not a military matter."

"I still think I should handle this," Kettelman said. "I know more about these matters than you do, sir—with all due respect."

"I will judge this matter," Macmillan said. "Unless you wish to take over the command of this ship by force of arms."

Kettelman shook his head. "I'm not going to put any black mark on my record. Go ahead and sentence him."

Captain Macmillan turned to Detringer. "Sir," he said, "you must understand that I cannot follow my personal inclinations in this matter. Your State has judged you and it would be ill-advised, impertinent and unpolitic of me to rescind that judgment."

"Damn right," Kettelman said.

"Therefore I continue your sentence of perpetual exile. But I shall enforce it more stringently than has been done heretofore."

The colonel grinned. Ichor made a despairing sound. The robot dishwasher murmured, "Poor fellow!" Detringer stood firmly and gazed unwaveringly at the captain.

Macmillan said, "It is the judgment of this court that the prisoner continue his exile. Furthermore, the court rules that the prisoner's sojourn on this pleasant planet is an

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amenity unintended by the Ferlang authorities. Therefore, Detringer, you must quit this refuge immediately and return to the empty fastnesses of space."

"That's socking it to him," Colonel Kettelman said. "You know, Captain, I really didn't think you had it in you."

"I'm glad that you approve," Captain Macmillan said. "I hereby request that you see the sentence carried out."

"It'll be a pleasure."

"By using all of your men," Macmillan went on, "I calculate that you can fill the prisoner's fuel tanks in approximately two hours. After that is done, the prisoner must leave this planet at once."

"I'll get him moving before nightfall," Kettelman said. Then a thought occurred to him: "Hey! Fuel for his tanks? That's what Detringer wanted all along."

"The court is disinterested in what the prisoner may or may not have wanted," Macmillan said. "His desires are not germane to the judgment of this court."

Kettelman said, "But damn it, man, can't you see that you're letting him go?"

"I am making him go," Macmillan said. "It is quite a different thing."

"We'll see what they say about this back on Earth," Kettelman said ominously.

Detringer bowed to show acquiescence. Then, managing to keep a straight face, he left the Earth ship.

AT NIGHTFALL Detringer blasted off. The faithful Ichor was with him—now more faithful than ever, since he had discharged his compulsion. Soon they were in the depths of space and Ichor asked, "Master, where are we going?"

"To some marvelous new world," Detringer said.

"Or perhaps to our deaths?"

"Perhaps," Detringer said. "But with full fuel tanks I refuse to worry."

They were silent for a while. Then Ichor said, "I hope that Captain Macmillan doesn't get into trouble over this."

"He seemed quite capable of taking care of himself," Detringer said.

BACK on Earth, Captain Macmillan's action was the cause of much controversy. Before any official decision could be reached about it, however, a second, official contact was made between Ferlang and Earth. The Detringer case came up inevitably, was found too intricate to allow of any quick decision. The matter was turned over to a panel of jurists from the two civilizations.

The case provided full-time employment for five hundred and six Ferlang and Earth lawyers. Arguments pro and con were still being heard years later, by which time Detringer had found a safe refuge and respected position among the Oumenke Peoples of the rim-star civilization. ✱

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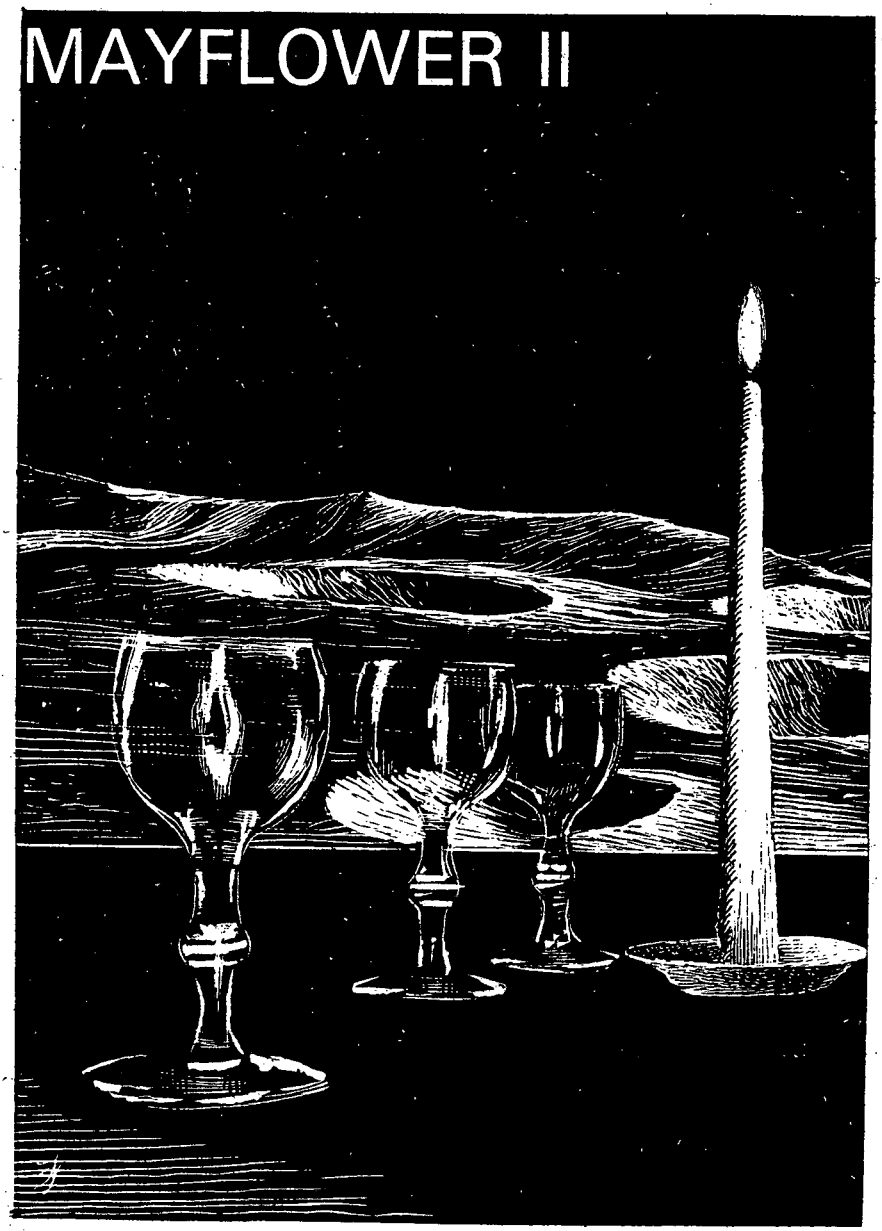
MAYFLOWER II



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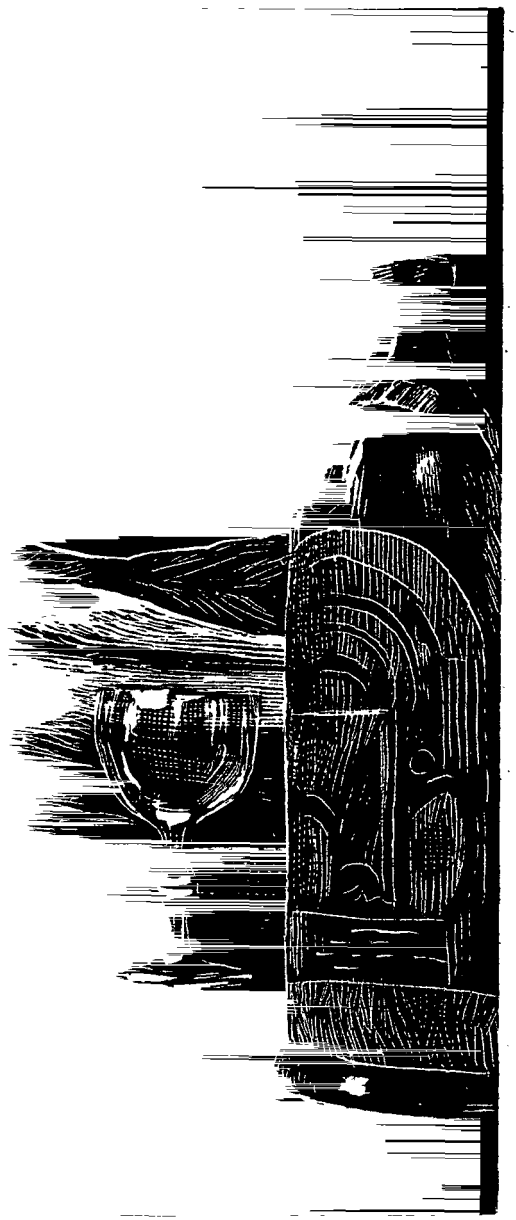

The two married couples had the moon to themselves. Their mission was a secret, but life leaked out!

ERNEST TAVES

If man and woman were to survive—as they felt they must—they first had to demonstrate in alien (non-Earth) places that they were capable of off-Earth conception, gestation and delivery of normal progeny.

One of the tasks of Mayflower Two was to achieve two lunar conceptions. No one know, after all, how such an affair would go. Ova, spermatozoa, chromosomes, genes, all weightless or relatively so. (The real weightlessness of outer space could wait—first IASA

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wanted to try perpetuation, or at least conception, of the species in lunar gravity.) Consensus was that lunar gravity wouldn't make any difference, but the decision-makers had to find out.

The Tactics of Colonization,
Boris Spector, 2025.

I

"MISSION CONTROL from *Stork.*"

"Roger, Gary."

"As your consoles will have told you, *Stork* has landed. Right on the money, I might add. We're about twenty yards from what's left of *Pearl Harbor.*"

"We copy that. Congratulations to all."

"The dome is collapsed, as expected."

"Roger. We're about a minute off the line, Gary. Suggest you initiate module checkout at this time."

"Will do."

"Gary?" This was Don Newsome, in orbit in *Chimney I. Chimney II* would pick this crew up in twenty-nine days. The crew hadn't chosen the names of the components.

"Roger, Don."

"I'll be leaving you shortly. I know you got wine down there and like that, but remember you 'sposed to work too."

"Okay, Don. I know you and Clara wanted to be here. We wish you were, as a matter of fact. We'll do what we're supposed to, Don. Good trip back."

"Right on, Gary. And Kathy and Bev and Ron. See you birds back on terra firma."

They broke contact and the crew of Mayflower Two got to work.

THERE had been the obvious jokes, of course, mostly crude and lamentably lacking in imagination. References to potency, fertility, swapping and so on. The general public wasn't supposed to be aware of the prime mission of Mayflower Two, but the word had gotten out. The four participants had taken this in reasonably good humor. They had, after all, been rigorously screened on all relevant parameters.

As it came about, the crew of Mayflower Two was a curiosity—it was strictly WASP, in sharp contrast to the diverse crews of Mayflower One and the already-crewed Mayflower Three. There had been some criticism on racial grounds, but you can't argue with the computer any more than you can with City Hall.

Computer input: ob-gyn histories, sperm counts, multiphasic profiles of many interesting human variables, psychiatric evaluations and predictions, compatibility ratings and personality extrapolations. No one knew what personality extrapolations were except their constructor, a hitherto obscure

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behavioral person, one Dr. A. Fulcher, and he wouldn't say anything—he did seem to know how to tell the programers which keys to punch.

Also into the computer went everything that could be said about academic background, achievement and publication, since everyone considered for the mission was a physical scientist of one stripe or another. Pilot proficiency, simulation performance and training records, down to the last decimal.

IN SHORT, the lot. Well, almost the lot.

Not into the computer: marital status. This had been predetermined. The power of public opinion, plus the power of the Congress of the United States and other funding entities, was such that it was mandatory that the Mayflower Two crew comprise two lawfully wedded couples. Everyone whose data went into the computer was married to someone whose data were also spun off into that monster. The permissivity index was declining. Jokes or no, there wasn't supposed to be any hanky-panky, no swapping, on the moon.

Computer output: Ronald Watson. Twenty-eight-year-old white male from Albuquerque. Mineralogist. Long blond hair, the body of a discus thrower and a taste for wine, of which he knows quite a bit. The only astronaut, ever, to be a member of *Les Chevaliers du Taste-vin.*

Kathleen Townsend Watson. Twenty-eight-year-old white female from Phoenix. Short blond hair and the body of a figure skater, which she is not. She is a radio interferometrist.

Beverly Webb Brooks. Thirty-two, the oldest of the crew. Biomedicine, M.D., Ph.D. Wavy dark hair and dimples. Her figure is that of Mother Earth, reduced to five feet eight, a hundred and sixty, and 38-28-40.

Gary Brooks. Thirty-one and a seismologist. His figure is that of a player of chess, a game of which he knows nothing. Still, the computer has pulled him through. The commander of the mission has, as usual, been selected by lot, and he is it.

THEY suited up and cracked the hatch. Again, for four people, the uncommunicable experience of stepping slowly and awkwardly down the ladder and onto the lunar surface. They inflated the dome and entered through the air lock.

"Why, it's neat as a pin," Kathleen said. "Teiko said to excuse the mess they'd left."

"Her mess is our neatness," Beverly said. These women knew each other well—they had been into each

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others' houses, kitchens. Now two of them were setting up housekeeping in a place one (with others) had lived in before. An odd feeling.

First they set out the solar accumulators, then spent the afternoon—the local afternoon, not the lunar—bringing in the first lot of supplies, doing the things people do whenever they move into any place. On Earth or Luna, into apartment, motel, house or dome, the basics are the same. Get the things you need inside and get on with the business of getting ready for the night.

Getting ready for the night.

The matter of privacy had come up in the mission, as it had in preceding ones and would in those to follow. The Mayflower Two crew set up their new arrangement in living by trisecting the dome. One sector for the Watsons, one for the Brooks's and one in common. The partitions were translucent. They hadn't wanted transparency, but they had rejected the bleakness of opacity. Shadowy movement would be reassuringly visible from one side to the other.

During the local day the partitions between the living places (or the sleeping places) would, they thought, be drawn aside. This would make the dome a relatively airy and spacious place. They would take their meals in the common room. And play bridge (a far-out outpost of suburbia here) and poker. Their mutual interest in these games had, of course, been part of the computer input.

They were busy the first day, with so much to transfer from the module into the dome and the accumulators to deploy. Ronald Watson's first job was to carry to the dome, with great care, the few bottles of very good wine. These could not remain outside for any time at all. And they all carried in food, sleeping bags, partitions, portable toilet, water, decks of cards, poker chips, communications gear . . . Gary meticulously checking item after item in the big book.

Time for dinner at last, though the sun was high. Beverly and Kathleen set up the table and Ronald ceremoniously opened the ritual bottle of wine. *Clos de Tart,* nineteen ninety-three.

Gary Brooks busied himself in the Brooks quarters, his back to the common room.

"What do you say for your first dinner on the moon?" Beverly asked Kathleen. "Come and get it? Soup's on? It's not soup, but it's on. Come and get it," she said.

Gary Brooks did not adjust to lunar gravity as gracefully as the others, and he now loped awkwardly toward the table, upon which he placed two tall yellow candles, which he had fixed into holders. He proceeded to light the candles.

"I will be damned." said Kathleen. "Are we having candlelight and wine way up here on the moon?"

"Well, yes," said Gary, thoughtful smile on his face. "Though it's broad lunar day and I know that. I also knew Ron would have wine

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tonight and I—well—I want candlelight and wine. All right?"

Beverly kissed her husband. "You brought them in your PPP."

"I did. In my tidy little Personal Preference Package, yes. Among other things. I wonder what the rest of you have in yours. I've no idea what Bev has in hers."

"No doubt we'll find out as time goes on."

"That was sweet of you, Gary," Beverly said, the candles flickering over the table. They threw no light at all into the glary day, but the flames were visible, wavering there, saying something.

"Actually, when I decided to bring them I was thinking of the night. They'll be nice then. But this is a special occasion."

The amenities of Mayflower Two included a modicum of music, music of their choice. There was always Houston and the radio, but they also had a tape deck with eight cassettes, two chosen by each crew member. Gary put on one of his, a sentimental melange from the late eighties.

The rations were standard IASA, but the wine wasn't. Ronald was suitably grave dispensing it. A special occasion with music there, candles burning in the sunlight, and a first dinner on the moon.

They all cleaned up afterward, even as in Bronxville or Brookline, though the problems weren't quite the same.

"A rubber of bridge before bed?" Gary asked. "Some hands of poker?"

The rules of the game, games, had been set forth before liftoff. Scores would cumulate until the end of the mission. Stakes would be reasonable, but significantly different from zero. Debts would be settled upon return to Earth. In bridge the married couples would be partners. In poker (as always) each to his own. These were all gamespeople, which datum had not escaped the computer's notice.

"I'm tired," Ronald Watson said, "but let's have a rubber or two of bridge to get a score started."

They began the first bridge game on the moon.

Logistics: Or, swearing by the constant moon.

All lunar missions are necessarily tied to what the moon is doing, where it is in relation to what terrestrial feature, how far it is from Earth, where the desired landing site is, and so on. Mayflower Two was tied to the lunar cycle in more ways than these.

Beverly Brooks's and Kathleen Watson's menstrual cycles had been regulated on Earth as close to the precision of WWV as had been possible. *Stork* had landed as near lunar midday as technology allowed. The two menstrual cycles in question had peaked in translunar trajectory. The weeping of the red mucosa was supposed to cease on or about their second day

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on the lunar surface. This all fitted together into a neat formula which dictated that the two ovulations would take place at or close to the lunar midnight. There'd been no options here. Mission Design had said how the cycles would go and that had been that. The subject-participants had raised no objections—the Mission Design arrangement had seemed desirable to them also.

There had been more than enough briefing. The Mayflower Two crew had been told, for example, that if the most potent and spermatozoic male and the world champion fertile willing female mated morning, noon, and night, they would never, never conceive, since there would be no time, in the midst of all that, for the sperm count to get high enough—as had been shown often enough in the literature.

And there had been briefing along other related lines—though after Pegasus Two and Pegasus Four and Mayflower One some intelligence was beginning to seep into the awareness of Mission Design to the effect that events on lunar missions were not entirely within their control. Thus Beverly and Gary and Ronald and Kathleen had no rigid timetable that scheduled the achievement of their prime objective, but they did have something like guidelines.

None of which had much relevance the first night.

"HOW'S it going?" Gary asked his wife.

The dome was quiet now and there was a feeling of night about it, though the sun was overhead. Some shade was provided by movable sheets of opaque mylarplex, a convenience Mayflower One hadn't had. There was quiet background music, one of Kathleen's cassettes endlessly repeating. Voices were low and there was at least a simulation of an approach to privacy.

"I'm about finished. Be through tomorrow, I think. Right on sked."

Sleeping bags on the floor of the dome and heads in the shadows.

See it this way:

Screen very dark, shadows vaguely moving.

Gary: Our first night on the moon.

Beverly: Yes. And it's so bright. But it seems like night, somehow.

Close shot: a dimly seen blur of activity where the sleeping bags are. Nothing heard over the background until:

Gary: I'd better take this out.

Beverly: Yes. Here, I'll do it.

Middle shot: dark screen with shadowy shapes, this holding for an unidentifiable length of time.

Gary: The gravity makes it different, doesn't it?

Beverly: It do. That was sweet. I

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guess we're in training. Good night, Gary-person.

Music self-destructs and the dome is silent.

II

WORK to do, and getting on with it the next day.

Kathleen Watson's business is radio interferometry. Upon the surface of the moon she will set up two transmitters and two receivers, these four units placed at precisely measured distances from each other. This apparatus will be in two-way communication with a similar lashup on Earth, though the distances there between units will be much greater. Thus more will be learned about earth-moon distance, lunar libration and the like.

Gary Brooks, the seismologist with the chess-player physique, will set up recording equipment here and explosive charges there, in aid of determining, via shock waves, the effect of the latter upon the former, thus extending our knowledge of the inner nature of the moon.

The mineralogist, oenophile Ronald Watson, will gather rocks for subsequent study on Earth. There hasn't been a lunar mission yet that hasn't collected rocks and Mayflower Two will be no exception. (The search, each mission, becomes more sophisticated.)

These three crew members will, during the sunlit days, keep the rover quite busy.

Mother Earth Beverly Brooks is the medical person. She will perform numerous analyses upon the crew, including herself, and will conduct obscure experiments concerned with viruses, phagi and bacteria upon the lunar surface. The most important component of her gear is one of the first two ovulometers on the moon. Kathleen has the other.

An ovulometer is, for all of that, a simple device: a thermometer of particular construction and scale whose purpose is to pinpoint the time of ovulation. Other means are available and will be there for backup, but the ovulometer is old reliable—and besides, it weighs almost nothing.

The first full day on the moon, then. The crew of Mayflower Two breakfasted; deployed the rover (which worked well right off); set about their respective scientific programs; dined (no wine, no candlelight); and played poker for two hours (Gary Brooks losing, Ronald Watson winning, the women about even).

The second day differed from the first principally in that Beverly and Kathleen took the first of their basal temperatures—which is to say that, before rising, they inserted the ovulometers and, after waiting no less than four minutes, read what they said. These values Beverly plotted upon coordinate paper, one point on each of two sheets, these points comprising the beginnings of two curves crucial to the success of the mission. Day two also differed in

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that the rover was already deployed, so they didn't have to spend two hours doing that. And instead of poker they played bridge that evening (Brooks team ahead by a modest margin).

SCIENTIFIC work going on and the sun lower every day as the terminator approached. It arrived on the seventh day with predicted, but startling, suddenness. Nor was the change altogether physical. Night was one moment there and the next moment here and, as always, the intradome ambience shifted, changed from one complex set of orientations to another.

Kathleen Watson's interferometric experiments would continue, but by remote control. Ronald Watson wouldn't be looking for rocks in the dark. Gary Brooks's shocking experiments were over until the lunar dawn. Beverly had nothing to do outside.

Thus, they were all scheduled to remain within the dome for the next fourteen local days—the mission culminating, so to speak, on the sixth, seventh or eighth day (night) after the hasty passage of the terminator, the specific time to be determined by internal events, telltold by ovulometers.

Candlelight and wine appeared again within the dome, this time the candles making sense, belonging there, creating a sense of coziness to moon-people (had there been any) looking in from the outside.

"I said it would be nice at night," Gary said. "And it is."

"It is. And the wine," Ronald said, "is far from mediocre. The first bottle of *Petrus* on the moon. To the mission," he said, raising his glass.

They drank to that and to a few other things and they cleaned up and got ready to play.

"It's going to be a long night." Ronald said. "We've done our bit for IASA—as much as we can at the moment—so now we can relax and do things for us. Play games—bridge, poker—drink such little—but very good—wine as we have."

"Enjoy ourselves," Kathleen said. "Prepare for midnight."

"Read. And sleep long hours," said Beverly. "Lie lazily in late morning looking at Earth up there. Sometimes I want to reach out and touch it. You know?"

"Make money playing poker," Gary said. "I'm down. Down in poker, I mean. But I'm up in bridge. And read, yes. As for touching the earth, I'll do that when we get back. I can't do it from here."

Gary pinched out the candles to save them and turned on two lights.

"Which game tonight, then?" Kathleen asked.

There was the obvious difference. In bridge it was two against two, one partnership against the other. In poker it was dog eat dog.

"Bridge?" Beverly.

Ronald glanced at Kathleen. "All right," he said.

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They set up the table. It was a quiet game and they finished about even.

The guidelines for the crucial aspect of the Mayflower Two mission were more suggestive than mandatory—which showed uncommon common sense on the part of Mission Design. The women would ovulate come what may, but what would happen within the testes of the men consisted, to a degree, of controllable variables. Too-frequent expenditure would lower the count to the point of sterility and IASA would not approve of that. On the other hand, use it or lose it. Between extremes, then, were optimal performances—or, more correctly, optimal layoffs between performances. These had been determined for Gary Brooks and for Ronald Watson by indelicate but necessary means. Thus the couples had been proved with some direction, but no coercion. Mission Design wasn't about to say, *Do this on this day and that on the third one after* and like that, which could easily, if not predictably, have led to difficulties. The whole thing was dicey anyway, since no matter the extent to which the men tried to control things, the precise times of ovulation of their women were unpredictable. Those moments were determinable when they happened, but were predictable only within limits.

DEEPER into the lunar night now, and one cassette or another is providing a measure of auditory privacy. The provision of those tapes had been good thinking by someone.

Gary: Four days to midnight.

Beverly: Or D-day. Yes.

Gary: Nothing on the curve yet?

Beverly: No. And I've quit having awful thoughts that it will just stay flat. I can tell, now.

Gary: Of course it won't stay flat. Nor will I, for that matter. If you'll just move over a little...

Beverly: Yes, Gary-person. Come And:

Kathleen: Ron?

Ronald: Kathy?

Kathleen: We're coming up to midnight.

Ronald: We are. Three or four more days.

Kathleen: Is it all right if I want you now?

Ronald: The thermometer doesn't show anything yet?

Kathleen: No. But soon. I can tell, I think. Maybe tonight. Look at this.

She withdraws something from beneath her pillow, hands it to Ronald.

Ronald: What in the—a baby shoe. Jesus Christ. In your PPP. That is so goddamn sentimental...

Kathleen: I know. But I wanted to do it. It's one of Carol's. So. Now, all right?

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Shadowy movements on the screen and the music continuing all night since everyone went to sleep while it was still on.

TWO days later Kathleen Watson approached Beverly Brooks. "I need a word in private," she said. They went to one side of the dome. "My ovulometer is busted."

"Busted?"

"Ron snapped it in half last night. I'm sorry. I guess I'll have to borrow yours in the mornings?"

"What happened?"

Kathleen turned to look at the night, dimly Earthlit.

"Well, not to put too fine a point on it he wanted to make love again last night—we had the night before—and I thought we shouldn't because of the count. He lost his temper and said he didn't care to be programed all that much and he broke it."

Beverly sighed.

"We don't have to tell Houston, do we?" Kathleen asked. Such report would not reflect great credit into Ronald's dossier.

"I don't see why we'd have to. I'll have to tell Gary, of course. But I don't know why he'd have to report it. As soon as I've used mine I'll take it in to you. You stay quiet in bed until I get it to you. No problem."

Kathleen smiled. "All right. I'm sorry."

"No problem. Except one."

"What's that?"

"Ron best not break mine too. I hope he—and you—understand that."

"I'll take good care of it," Kathleen said.

MORNING of the fourteenth day into the mission. Beverly removes the ovulometer and examines it.

"That's it," she says. "Countdown have come to zero."

"Well, in that case—"

"No. Poor baby. Give it a little time to migrate. Augments the probability of success."

"What migrate? The ovum?"

"Yes."

"You're not worried about success."

"Well, no I'm not, if you want to know the truth."

She took the ovulometer in to Kathleen.

"We're there," Kathleen said.

"Ah. Tonight, then, perhaps the *La Tache.*"

"And Gary's candlelight."

"Yes. Congratulations, love."

"Don't mention it. You don't suppose it could be a—monster or something?"

"The different radiation, the gravity?"

"Yes."

"No way. Don't worry love, it will be fine. Just fine."

Daily report:

"Mission Control from Nectaris Base," Beverly said.

"Roger, Beverly."

She rattled through the

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usual rundown. Then: "Also, we have two ovulations here. As of this morning. So tell the boys in the biomed backroom that their timing was faultless."

"We copy that. Fine business."

"Roger. Nectaris Base out."

The daily contact with Earth was reassuring, but not as much so in the event as they had thought in anticipation.

DURING the rest of the day they got on with the work of the mission, the other work of the mission, such busy work as they could find to do within the dome during the lunar night. In midafternoon they were ready to play—it shouldn't have to be said that they chose bridge instead of poker. They played a close rubber, which the Brookses won.

Then there was candlelight and wine and dinner eventually over, everyone going along as usual, cleaning up afterward and then, in quiet celebration, some Grand Marnier as they sat there and looked at each other and up at Earth.

"That was a sharp play you made in the last hand, Gary." Ronald said.

"More luck than anything. I don't think I really had it all taped."

"How about another rubber before bed?"

"Yes," said Kathleen. "That would be nice."

Beverly and Gary exchanged brief but pregnant glances. Gary shrugged his shoulders an angstrom or two. No one noticed this but Beverly. She said, "Sure," and Gary nodded and they set up the game. Which the Watsons won.

"I feel a quotation from Pepys coming on," Ronald said.

"I can agree with that," said Beverly.

"I also." Kathleen.

"What quotation?" Gary asked, a query which brought him a variety of glances. "Well, I'm not a literary type," he said.

"And so to bed, dear," Beverly said, and that sent Gary loping to his PPP from which he extracted a cassette which he thunked into the tape deck. Into the dome came then the roar and now the murmur of the Pacific Ocean smashing into rocks and rolling upon the sand of an isolated Oregon beach and comprehension and delight rose in Beverly's eyes.

"That isn't from—"

"It is. Nice, hm?"

"Very nice, Gary-person. And a surprise. I knew you were up to something that day. This is a beach we spent a few days at a while back," she said to the Watsons.

"It goes three hours without repeating." Gary said. "Listen to that. It was a stormy day."

And so, indeed, to bed.

MOMENTS of truth come in variegated packages including test-tube reactions, chromatographic displays, litmus-paper reactions,

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polygraph squiggles and—all too often—in the look in the eyes of someone you're looking at, not having to wait for what the conjoint vocal cords are going to put on you.

Gone the wine and candlelight, but still Earth up there, beginning to wane, this datum determined by the relative positions of the three involved heavenly bodies.

Forty-eight-hour pregnancy tests are now virtual certainties and Beverly has made the tests and Kathleen has seen Beverly's eyes. Beverly tells her anyway, with words.

"The test could be wrong, right?" Kathleen asked.

"Almost no chance. For a false positive, maybe, though the odds are thousands to one. But not for a false negative. I'm sorry, Kathy."

She reached to touch Kathleen's arm. Gary and Ronald were on the other side of the dome playing two-handed showdown poker—a lousy game, but neither of them wanted to be with the two women, not at this moment, both of them knowing what was going on, one of them knowing what was transpiring. What was becoming known which had not been known before.

"That's all right. I don't care that much. I don't think I do. But I don't think Ron will like it. Not for the right reasons, of course."

"Yes."

"Yours was positive. Is positive. I can tell."

Beverly hadn't mentioned this. Now she nodded, thinking: *I will not be irrepressibly smug about this. Nor will Gary. It could very well have been the other way round.*

And she wasn't irrespressibly smug. Just a little. And so with Gary, when the communications had been dispersed throughout the population.

III

Daily report:

"Mission Control from Nectaris Base."

"Roger, Gary."

He ran through the rundown, then said, "We have one conception here. Beverly."

"Roger. Congratulations, you two. Hold one. Kathleen and Ron right there?"

"Right here listening," Gary said.

New voice from the squawk box now. Sam Horowitz, chief of biomed. "Well, we batted five hundred and that's not bad. Kathy and Ron?"

"Yes."

"Yes."

"Not your fault. Not to fuss about it. We're happy we got one. Could have been zero. Speaking for IASA, we're pleased. So—well, don't be put down, that's all. It will be day soon and you'll all have lots of work to do. Then we'll see you down here."

"We'll be all right," Kathleen said.

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"That's right." Ronald said. "Don't you get uptight, Sam."

"Certainly not. Well, that's all. See you later."

"Roger, Sam," Gary said. "Anything else, Mission Control?"

"Negative. Mission Control out."

"Nectaris Base out."

FOUR days now until the arrival of the terminator, four more days of lunar night and the atmosphere within the dome reflected, of necessity, the results of the prime experiment. Beverly carried on as always, proud and happy to be pregnant again—and not just for IASA, but for herself and her Gary. Gary was unusually kind and gentle, particularly to Ronald, even while playing poker, though he didn't give any hands away. Kathleen was discouraged and looked forward to getting back to her radio work—where she would be in control. Ronald Watson was the major problem. And, as his wife had said, for the wrong reasons.

GUNGA DIN kept coming into Ronald's mind. He found this annoying and thrust it aside, but it kept coming back and he wondered why that was. He was not an obsessive-ruminative type, but was learning something of what it was like to be one. Awake too early the morning of lunar dawn, the terminator about three hours away, the rest of the phrase came uninvited into his mind.

You're a better man than I am...

But that's not so, it doesn't follow. Besides, I'm ahead in poker. And he knew that didn't mean anything, not along the parameter of chief importance, but he carried all of it into the lunar dawn.

NIGHT one moment, then the terminator flashing by, and it is day again, long-shadowed morning. They all wanted to get to their work outside and breakfast was a hurried affair. Suiting up and out the air lock. Gary drove the rover and dropped Beverly and Kathleen off at their places.

"I'll go with you, Gary, then walk off to the east. There's a lot of ground to be covered there yet."

"You want the rover?"

"I can do it better on foot. I'll make a reasonable traverse eastward and circle toward the dome."

"I can follow your tracks and pick you up."

"I'd rather walk, old buddy. All right?"

"Sure."

Gary stopped the vehicle by his instruments and Ronald loped off with his collecting bag.

"Watch the dials, Ron." Mission Control. The crew of Mayflower Two had a private circuit they could use in the field when they wanted to, but mostly they kept Houston cut in.

"Acknowledge," said Ron, stooping over to study a rock. Gary

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watched him disappear into a small depression.

TOWARD local five in the afternoon, then, with Beverly, Kathleen and Gary back in the dome and Ronald out on the surface someplace.

Gary decides he has waited long enough and fires up the rig.

"Stork Three from Nectaris Base."

"Yes, Gary."

"It's about time you got back. Location?"

"I can see the dome. No sweat."

Houston suddenly came to life. "Stork Three from Mission Control."

"Roger."

"We read your oh two at point six. What is your capability?"

"No sweat, I said. Now, if you don't mind, I'm carrying a load of goodies and best not to talk. I'm heading for the dome. All circuits off."

There was a click and that was that.

"Nectaris Base?"

"Roger."

"Stand by to take auxiliary oxygen out to Ron. If he doesn't show up soon he'll need it."

"Roger. We'll handle it. Nectaris Base out."

It was unnerving to Houston to be cut out, but it happened now and then. Gary and the girls looked out toward where Ronald should be. No sign.

"Damn," said Kathleen.

Gary began to get his suit ready.

"Not yet," she said. "Not yet, Gary."

Two minutes later they saw his long shadow. Gary estimated the distance and did some fast calculating. "It's going to be close," he said.

"He'll make it. Just. You'll see."

And he did. Just. He stumbled through the airlock, got his helmet off by himself and sat down, panting. Gary checked the important dial. Zero. Kathleen was curiously silent, helped Ronald unsuit. Gary started to say something, but restrained himself.

"Houston first," he muttered. "Mission Control from Nectaris Base."

"May I say, Gary—"

"I know, Joe, I know. May I say that Stork Three is back in the dome. No problem. He was slightly delayed by a rich field of rocks. Nectaris Base out."

"Just a cotton-picking minute, Gary. You cut us out again at a time like that and there might be a bit of trouble when you get back, hear? How much oxygen left when he got back?"

"Enough," Gary said.

"Our telemetry showed mighty close to zero before Ron thought to cut it off."

"It was low, but he made it. Now, we really do have work to do. Nectaris Base out."

Mission Control clicked off without acknowledgement.

Gary turned to Ronald. "Not again, hear?"

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"No thanks, Gary."

"Us astros mus' stick together," Beverly said. "But you had us scared there, Ronnie-boy. Naughty."

They had one bottle of wine left, but they were saving it for the last day.

AND that last day came, the last full day. The work of the morning, the final work of the mission, was finished. Rocks, records, most of the personal belongings had been neatly stashed in *Stork*. They would complete their bridge and poker tournaments in the afternoon—but first, something else.

It had become traditional for each astronaut to leave something on the moon, something of himself, his life—a need or compulsion no one, including the astronauts, entirely understood. Some of these items had been well-publicized—some were known only to the astronaut and to those, if any, in whom he chose to confide. In at least two early instances this practice had been subjected to commercial exploitation, to (then) NASA's dismay. Most of these objects to be left behind had, however, been chosen for deeply personal reasons—and thus constituted a kind of personality test, a lunar Rorschach of sorts. Now it was Mayflower Two's turn.

"Beverly and I are going for a walk," Gary said after lunch.

"We will, too, shortly," Kathleen said.

"I'll be taking the rover." Ronald.

"Where you going?"

"To The Mountain."

It wasn't a mountain, just a collection of rough boulders, curiously piled. Ronald had spent a bit of time there, chipping away at those large masses.

"What are you going to put out there?" Gary asked.

"I may tell you later. What are you going to leave?"

"I'll show you."

Gary went to his quarters and returned with something in his hand. He held it out.

"An onyx cube," he said. "Three inches on each side."

They passed it around.

"It's very handsome," Kathleen said. "Why that?"

"You know, that's hard to say. I don't know. All this dust, soil, these rocks. I like the idea of a polished onyx cube sitting on top of a round boulder I know."

He began to suit up, as did Beverly.

There was a shyness about asking.

"I'll show you what I'm leaving," Beverly said—and did. It was a toy, a rocket model.

"Why that?"

"George thought it would be a good idea." George was their younger son.

Kathleen had planned on leaving the baby shoe, but had abandoned that and hadn't brought along a backup.

Beverly and Gary went out

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through the lock and the other two followed shortly. Ronald went off in the rover. Beverly just walked about.

THE two women and Gary were back in the dome within thirty minutes and began setting up the table for bridge.

"Ron?" Kathleen asked on local circuit.

"Just got here," he said. "Set up the bridge table."

"It is."

"Fine. Just as soon as I get to the top of this pile of rocks I'll be on my way back."

"Ron," Kathleen said, an edge to her voice.

"Yes?"

"You don't have to go to the top."

"Oh, yes—I do. I'm going to put something up there. I'll be right down."

"Ron. I've been out there. That's dangerous. You're not to do it." Gary made as if to take the mike from Kathleen. "No," she said, switch off, "I know what he's trying to do." Switch on. "Ron, for God's sake, it's our last day. Come on back and let's play bridge and have a nice dinner. With the *Chambertin.*"

"Will do. This won't take long."

Houston was in on none of this.

Kathleen shrugged and put down the mike. "No way to stop him. He's proving something again, goddamn it. Three-handed bridge, anyone?"

They fiddled around inside the dome, waiting. Gary sat at the table, consulted the cumulated scores.

"I'm going to be down about twenty-five dollars," he said. "Ron's up about forty. Kathy's down about ten. Which leaves Bev down five. Bridge and poker together."

Kathleen picked up her watch and reached for the mike.

"Ron?" she said. "Ron?"

"Yes, Kathy," His breathing was labored.

"Are you all right? You on your way down?"

"I'm on my way down," he said, breathing heavily. "I got to the top." Pause. "And I'm on my way down." The three of them at the squawk box, listening to the breathing. "And—I'm stuck."

Gary took the mike from Kathleen.

"Ron. Quit trying to get unstuck, then. Save your oxygen. That's an order. Very briefly, what's your situation?"

"I fell. Left boot wedged in between couple of damn rocks." Kathleen started to put on her suit. "I'm more or less upside down." Heavy breathing. "No sweat. Just can't get this misbegotten boot—"

"Okay, Ron. Cool it. Relax. Save your breath. We're on the way."

Kathleen was about ready to go through the lock.

"Hold it, Kathy. I'm coming, too."

"No, Gary. Can't you see—I have to do it?"

"That's about an hour and a half to walk out there."

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"There's plenty of oxygen. Besides we won't have to walk back, there's the rover."

"You might not be strong enough to dislodge that boot."

"I can do it. I have to."

And she was gone. They watched her until she disappeared over the rise. Gary made no move to follow.

"You're right," Beverly said.

"What?"

"Not to go with her. She has to do it."

"I don't see it. I'm not sure. Maybe I should follow."

"You're not a woman, Gary. A fact for which I am profoundly glad. But you are sometimes dense."

"Come on. I knew Ron was put down when Kathy didn't conceive. But this is ridiculous."

"He wasn't just put down, Gary—he was wounded. As he's apparently trying to demonstrate for the second time. For him to be rescued by you, now, would be just too much. It'll be bad enough as it is."

Little conversation for the next hour and a quarter.

Then: "I'm almost there," Kathleen said. "About ten more minutes."

Ron was very quiet, saying only from time to time that he was all right. The blood was down to his head and uncomfortable, but in the lunar gravity this was no disaster.

"I'm here," she said. "And you are indeed just about upside down."

Ronald was about halfway down the awkward pile of rock, his fishbowl no more than three feet above the lunar surface.

"This ought to be easy." Kathleen kneeled in front of him. "Just put your hands on my shoulders for leverage and push up."

"Give me a lever and I can move the world," Ronald misquoted.

He pushed himself upward gently and freed the boot within ten seconds. He fell down the last three feet, he and Kathleen mingling together in a slowly writhing display of arms and legs, finally coming easily to rest in languid swirls of moondust, their helmets together.

And Ronald began to laugh. Kathleen thought for a moment he was hysterical but he was really laughing and it was contagious—in a moment they were helpless on the ground, convulsed, faces wet with tears.

Meanwhile, back in the dome Gary reached for the microphone, but Beverly held his hand. The laughter eventually subsided.

"Now," Ronald said, "if I may take you for a short ride in this, my latest convertible—"

"A pleasure," Kathleen said.

"They're both crazy," Gary said.

"No, they're not," said his wife.

"Oh," Ronald said. "Mission accomplished. Shuffle the cards."

"They're waiting," said Gary.

THE Watsons entered the dome in high spirits and Ronald unsuited. Kathleen removed her fishbowl.

"Sorry, Chief," Ronald said, "but

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I had to put my thing where I wanted to put it."

"Okay. So what is so bloody funny then?"

"Well, I hadn't planned to tell anyone what I put up there. But I might as well. It was something I won in high school. It meant a lot to me. A medal. I won it in track."

"Discus throw?"

"No. Javelin. It was the contrast, you see. And our slapstick tumble—" He began to laugh again, then Kathleen, then all of them, and thus a final catharsis.

Kathleen clumped into the Watson quarters, came out with something, said she'd be right back and put her helmet back on. Out the lock she went and was back in ten minutes.

TWO stubs of yellow candles on the table, throwing no light, and the *Chambertin* finished. Their last lunar night, approaching midday, the sun high and the shadows short. Not much interest in bridge or poker, they'd played enough games.

Final daily report:

"Mission Control from *Stork*."

"Been waiting for you, Gary. Didn't want to interrupt your party."

"We copy that and we thank you for your solicitude. Everything under control at end of final lunar day. We'll be ready for liftoff right on the button tomorrow."

"No problems?"

"No problems. We're about ready to sack out for the last time in this here mylarplex mansion. See you tomorrow. *Stork* out."

"See you tomorrow, you all. Talk to you, leastways. Houston out."

A casette into the deck and the couples into their quarters.

"Our last night," Kathleen said.

"Yes. What did you take out there, just after we got back?"

"You won't laugh?"

"I've laughed enough today, I think. What was it?"

"Carol's shoe. It seemed all right after we fell together at The Mountain."

"Yes. Good night, Kathy."

"Good night."

"You think the baby will be—all right?"

"Of course, Bev. Better be, or we'll never make it to the stars."

"That's really what this is all about, isn't it? To get us out there?"

"It is. One more step that-a-way. We've done our share."

"Yes. Good night, Gary-person."

"Good night."

They all eventually drifted off into sleep, in their ears the sound of the Pacific Ocean crashing onto an isolated Oregon shore. It went on all night, until they turned it off in the morning. ★

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GALAXY BOOKSHELF

Theodore Sturgeon

IT IS seldom that I devote this space entirely to a single shipment from a single publisher, but I think you will agree that this time it's worth it. The only departure stems from my promise to review the new Heinlein—which, as you well know, is worth seven times the space I have, all by itself.

The shipment: a box from the Seabury Press in New York. Contents: four books—an anthology and three novels. The antho's editor is Germany's Franz Rottensteiner, a name frequently appearing in the fan press, wherein his easy command of English always impressed me. Under the title *View from Another Shore* (Seabury, $6.95) he gives us a generous sample of European science fiction, an essay on the nature of same, and a useful bio/bibliography of the contributors. The stories come from Poland, France, Denmark, West Germany, Czechoslavakia, Rumania, Italy and the Soviet Union.

Now, I'd like to review the stories strictly on their own merits, but Rottensteiner won't let me, for around them he has woven a fabric of opinion, the texture of which is that unbeknownst to English-speaking readers, there is "uniquely European" science fiction. "International science fiction," he writes, "is an illusion; the only truly international science fiction is bad science fiction whose cliches are the same no matter where they are written." He goes on, "It is perhaps a matter of philosophy, of seriousness of purpose, as opposed to the irrelevance and playfulness of most American sf. These men—" He's talking about Stanisław Lem, the Strugatski brothers, and Herbert W. Franke—"deal with real problems, and they come to grips with the problems posed."

I wish he hadn't said that, because such provincialism calls stridently for a counter-provincialism, into which I am not about to get trapped—not I, whose early gods and initiators were Verne, Wells, and Karel Capek. Even

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though I have conceded (many times) that science fiction is ninety percent crap, I have said as often that the best of sf is as good as the best of anything anywhere. And in saying that, I mean not only in craftsmanship and narrative architecture, but in substance: in dealing with real problems responsibly, with clarity and force. Cream is cream, on either side of the sea, and good writers have more in common than they have differences. To brand the bulk of American sf as trivial is as foolish as the term "uniquely European." The best of the fiction in this box of books is very good indeed, and some of the works might be called unique, even. But "uniquely European?"

Let's look first at the anthology. Aside from the nit I have just picked, Rottensteiner's introduction is informative and interesting. I have not seen such a discussion of European sf since Sam Lundwall's in *Science Fiction—What It's All About* and Rottensteiner covers even more ground. Did you know that the most widely read sf author in the world is Poland's Lem? And that the only sf section of a national writer's association in the world is Hungary's? The list of prominent sf writers he gives is a long one, as is the list of countries and languages in which sf is now being produced. It makes one hope that the Heidelberg convention will be followed by an increasing number of cons on the continent—judging by the knowledgeable Lundwall and Rottensteiner, there's hardly a place where such an event would not be welcome—and yeah hooray. The world's problems will never be solved unless and until we acknowledge that we're all of the same species and I can hardly think of a better, faster, more penetrating way to do this than to infuse each other's speculative literature.

AS FOR the stories, Rottensteiner makes no claim to their being "bests." Modestly, and probably accurately, he makes the point that he is showcasing what he has been able to find that is both available and pleasant to his palate—and I must say he has a pretty good one. Briefly:

From Poland the towering Lem gives us a comic and erudite tale of two robots, friends and rivals, and the obsession one of them has to discover the nature of happiness. To research this, he creates microcosms and microscopic beings whose size and rapid time-scale makes cultural evolution conveniently subject to study. For all the "uniqueness" of this concept, which I first encountered in 1939,[1] I found it enjoyable, often hilarious. Lem is most inventive and resourceful and he must have given his translator real hell.

The two French entries are disappointing. Gerard Klein gives us a slice of early Bradbury, and J.P. Andrevon something that might have been lifted from William Tenn's *The Men in the Walls*—if (as has never happen-

[1]Might that have been *Microcosmic God* by Theodore Sturgeon? —Ed.

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ed) William Tenn had decided to try a little sex-sationalism. This account of an alien's study of a captive human couple was completely spoiled for me by a reference to Arabic numerals and the symbol for infinity, by a creature which knew so little of humankind that even mammalian reproduction was unknown to it.

Denmark's Svend Age Madsen, Herbert W. Franke of West Germany, and Josef Nesvadba, a Czech—each in his own way probes philosophical and ethical problems. The Dane uses a fairy-tale structure to investigate the nature of reality (and, are we performers on someone's stage?). The others deal, at base, with Candide's edict: we should cultivate our own gardens . . . with the corollary: how? And—where are the fences, really? I liked these.

The Rumanian story is not to be believed and whether it's worth the effort is up to you. Lino Aldani, from Italy, tells us colorfully about the social consequences of "Oneirofilms"—a technically extended version of Aldous Huxley's "feelies". Here again the basic momentum is toward the nature of reality, and I can't fault that. But haven't you read it elsewhere?

And now we come to the three Soviet writers, and Sever Gansovski's truly superb story *The Proving Ground*. I haven't been so excited by a writer since I found an Edgar Pangborn in Galaxy's slushpile. Here's a man who thinks clean, writes clean, lifts you up and sets you down quivering. The hardest of hard-core sf addicts will be delighted with this story, but so will those who read for structure and those who look for meaning. Gansovski—a name to look for. Then comes Vsevolod Ivanov, with a slice of pure myth: a soldier returning from Alexander the Great's army encounters Sisyphus, the giant who was condemned by Zeus to roll a huge stone forever up a tall hill. What happens when the soldier informs Sisyphus that Zeus has released him? A fine fable—and if the above-mentioned hard-core sf addict rejects it, it's his loss. Finally, Vadim Shefner writes a warm little story about an overly modest supergenius and the girl he loves—a warm little tale that cuts sharply at human failings on its backswing.

No, Herr Rottensteiner—you have not made your point that there is a uniquely European sf. Rest on your other laurels: that you have uncovered for us an unsuspected population of peers, the best of whom are every bit as good as the best of ours. For that we can be genuinely grateful.

ALSO in this treasure-trove from Seabury Press are three novels—and the least shall be first:

Though it has much fascination for the nuts-and-bolts clique, *The Temple of the Past* by French author Stefan Wul (Seabury, $6.95) whiplashes through so many changes at the end that it defeats itself—

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especially the biggest revelation of all, one of those sudden exposures of utter banality. Still you might like the notion of a crashed spaceship having been gobbled up as was Jonah, and the long howdunit about escaping from the escape-proof.

Memoirs Found in a Bathtub (Seabury, $6.95) is by Rottensteiner's idol, Stanisław Lem, and from this one can understand the idolatry. Inescapably one thinks of Kafka, as the protagonist wanders through a super-secret Pentagon reverently called The Building. It has no connection with the outside (with reality, perhaps?) and inside, spying and betrayal are a way of life. We follow the tortuous passage of the protagonist through the endless halls and offices, meeting all sorts of characters on the way. The hero has been selected for a secret mission, but no one will tell him what it is. He has no clear idea who his boss is, or over whom he has authority. A well-wrought nightmare indeed.

Lem again: The *Invincible* (Seabury, $6.95) is very different indeed from both his above-cited examples. Here is sf in the grand tradition, the starship with a mission, the mystery of the fate of a sistership, the exploration of a strange and menacing planet, the discovery of an un-alive "life-form." The science is hard. The descriptions are vivid and powerful. And but for some excess heroics on the part of the protagonist, I find no nits to pick. The publisher reports that his 28 titles have sold six million copies in thirty languages and one begins to understand why. Especially provocative is a soliloquy on the attitude that there can be no alternative to conquest.

AND finally—the Soviet brothers Arkadi and Boris Strugatski. See above what I said about the "discovery" of Gansovski. It's like that: wherever and whenever you see the name A&B Strugatski, grab it. *Hard to Be a God* (Seabury, $6.95) is one of the most skillfully written, heavily freighted sf novels I have ever read. What do you like—why do you read sf at all? Super-gadgets? Historical parallels? Alien worlds? Swords, sorcery, heroism? Well, they're all here in full measure. The writing is well paced and the narrative is beautifully structured. The basic situation is, I think, Marxian, and the historical imperative. (Parenthetically, neither here nor in any of the above-mentioned Eastern bloc writings was I aware of any Communist preachment—which, I confess, surprised me.) Given that a feudal culture will evolve into a democracy and that this may produce state capitalism, as in the Nazi-Fascist regime; suppose that the Hitler Youth or Red Guard phenomenon occurs early—too early, while feudalism still dominates. Now: you are on a secret mission from a highly advanced Earth. You may help, but you must not interfere. You see this "gray shirt" phenomenon developing at the wrong point in the planet's history—what

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do you do? Get the book and find out.

Summing up, then: speculative fiction is by no means a phenomenon of the English-speaking world— if indeed it ever was—and the top levels of the creamiest cream may be found anywhere. I am grateful for this box of books, and just by the way—I salute those translators, who have done some extraordinary jobs in this treasure-trove.

AND now a new Heinlein: *Time Enough for Love—The Lives of Lazarus Long* (G.P.Putnam's Sons, $7.95). At 605 pages it's a big package at a very small price. I'm a little late in reporting it to you because this was one book I determined to read slowly and thoughtfully—and when I had done so I took more time for rumination. I have not at this writing seen any other reviews of it, but I can predict a lot of jackal-yapping at the old lion. It will be said that the book is self-indulgent, that it is a catch-all, that RAH is cashing in on his heap of notes and notions, and above all, that the author's "fascism" is showing.

I'd like to address myself to that last item first, because I'm so heartily sick of hearing it. Fascism itself is one of the forms of state capitalism and is by its nature anathema to an old empire-builder like Heinlein/Jubal/Lazarus. He has a spectrum of scorn for masses of people who follow, simply follow without decision or dedication, and though it may be gentle when the following is something he personally believes in, it is still scorn, and rises to detestation when the sheep follow an idiot or a madman. It's so easy to stick out a tongue and smack a simplistic wet label on one's betters, but just maybe they have grounds for their convictions, and just maybe one should crawl behind their eyeballs and see things their way for just long enough to understand how they came to their conclusions. I'll give you just one example of how Heinlein can spin one's head around if one will but yield him the floor for a bit. This was a private conversation, not from his works. I had said something about traffic laws, by and large, being the most pragmatic, the most just, and the most universally obeyed, and perhaps other bodies of law should be patterned on them. Heinlein agreed but said about drunks in cars that "for them we should bring back the whipping post." My reaction was horrified and forceful and I said things about barbarism, sadism, recidivism and outright cruelty. Heinlein heard me out and then said quietly, "Now look. My neighbor on the right has a three-car garage under a mansion in the middle of two hundred forty acres. The neighbor on the left is a divorcee with four kids in a rental. The bite for drunken driving, first offense" (he was living in Colorado at the time) "is $250. If my neighbor on the right should get convicted in

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court, it would mean the expenditure of whatever effort it took to find his checkbook and inscribe some numbers. For me it might mean the cancellation of a side-trip on my next world cruise. For the neighbor on the left, the mother, it would be a cataclysm. Now just suppose conviction meant ten lashes across the back. It would hurt us all just as much, just the same way." While my head was spinning off in search for a good answer, he amended, before I could even think of it, "Of course, there would be a full medical exam beforehand and the blows would be administered by a machine."

It is this ability to think things through which, when added to his skill and his joy in spinning a yarn, that makes Heinlein the giant he is. It does something else, too, and I am amazed that so few of his admirers, critics, students and enemies have not caught the point. He emerges from straight (and strait) origins, through the armed forces and professional engineering, and has every conditioned reason to be a square; but this drive to ask the next question, and the one after that, has produced a man who champions Eros even when it involves siblings or parents or consexuals. Paradox? Not at all. Robert and Jubal and Lazarus are never satisfied with thinking a thing through to a conclusion *and stopping there*, and the point so many seem to have missed is that this urgency in the man, and its expression, have been responsible for many departures from his deep conditioning, and have required a great deal of courage. It hurts to think things all the way through. It *hurts*.

Now lest I be justly accused of reviewing the man instead of his work, I must be unjustly brief. *Time Enough for Love* is about Lazarus Long, who appeared in several stories in the 'forties, and whose life is a solid unbroken line on the chart of Heinlein's celebrated "future history." Born at the end of the 19th century, Lazarus is looking at his third thousand years of life. The book is *not* a solid unbroken line; it is a rambling, out-of-order collection of yarns about and by Lazarus—and so states itself to be right at the beginning. Carp as you will at the reiteration of the Heinlein idiom: crusty authoritarian infallible man meets strong courageous willing woman in harsh political/physical/economic environment—they decide to have their way and damn well have it. In the meantime the housekeeping, be it budget or business, staples or stocks, is immaculate. But along with it is the fascination of watching the mind of a man whose reach always exceeds his grasp but who will never stop reaching. Above and around it all is his concept of Eros, a great mosaic which includes but transcends the patterns of sex.

Time Enough for Love will not create the following that occurred with *Stranger in a Strange Land*. Personally, I like it less than *Stranger*—but I love it more. ★

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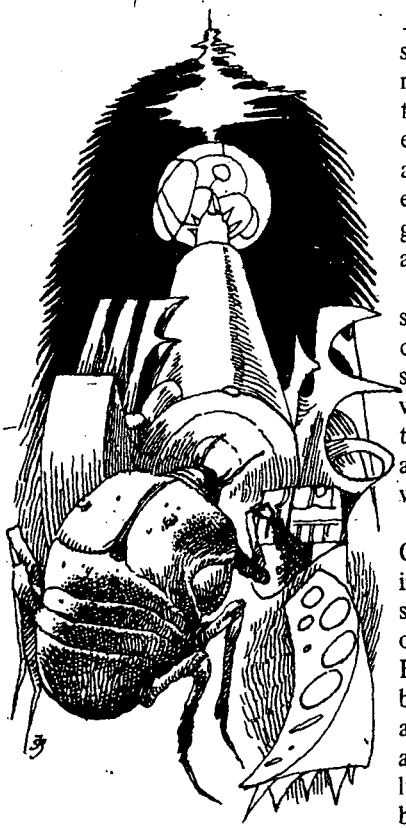
SOME JOYS UNDER THE STAR

The comet brought joy to all who could endure it!

FREDERIK POHL



IN FEW recognizable ways were Albert Novak—the man who stalked Myron Landau—and the Secretary of State alike, but they had this in common: they wanted. They each wanted something very badly and, as it happens, the thing that each wanted was not good by the general consensual standards of your average sensual man.

Let us start with the man who stalked Myron Landau or, more accurately, with Myron Landau himself. Myron also wanted, and what he wanted was his girlfriend Ellen, with that masked desperation that characterizes the young man of seventeen who has never yet made out.

On this night of July in New York City the factors against Myron were inexperience, self-doubt and the obstinacy of Ellen herself, but ranged on his side were powerful allies. Before him was the great welcoming blackness of Central Park, where anything might happen, and spread across the sky was a fine pretext for luring her into the place. So he bought her a strawberry milkshake in

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Rumpelmeyer's and strolled with her into the park, chatting of astronomy, beauty and love.

"Are you sure it's all right?" asked Ellen, looking into the sodium-lit fringes of the undergrowth.

"Cripes, yes," said Myron, in the richly amused tone of a Brown Belt in karate from one of the finest academies on the upper West Side, although in fact he had never gone into Central Park at night before. But he had thought everything out carefully and was convinced that tonight there was no danger. Or at any rate not enough danger to scare him off the prize. Overhead was the great beautiful comet that everybody was talking about and it was a clear night. There would be lots of people looking at the sky, he reasoned, and in any case where else could he take her? Not his apartment, with Grandma's ear to the living-room door, just itching for an excuse to come in and start hunting for her glasses. Not Ellen's place, not with her mother and sister remorselessly there. "You can't see the comet well from the middle of the street," he said reasonably, putting his arm around her and nodding to a handsome white-haired gentleman who had first nodded benevolently to them. "There's too much light and anyway, honestly, Ellen, we won't go in very far."

"I never saw a comet before," she conceded, allowing herself to be led down the path. In truth, the comet Ujifusa-McGinnis was not all that hard to see. It spread its tail over a quarter of the sky, drowning out Altair, Vega and the stars around Deneb, hardly paled even by the lights of New York City. Even a thousand miles south, where NASA technicians were working around-the-clock shifts under the floodlights of the Vehicle Assembly Building, trying to get ready the launch of the probe that would plumb Ujifusa-McGinnis's mysteries, it dominated the sky.

Myron looked upward and allowed himself to be distracted for a moment by the spectacle, but quickly caught himself. "Ah," he said, creeping his fingers toward the lower slope of Ellen's breast, "just think, what you see is all gas. Nothing really there at all. And millions of miles away."

"It's beautiful," Ellen said, looking over her shoulder. She had thought she had heard a noise.

She had. The noise was in fact real. The foot of the handsome white-haired gentleman had broken a stick. He had turned off the flagstone path into the shelter of the dwarf evergreens and was now busy pulling a woman's nylon stocking over his white hair and face. He, too, had planned his evening carefully. In his right-hand coat pocket he had the woolen sock with half a pound of BBs knotted into the toe—that was for Myron. In his left-hand pocket he had the clasp knife with the carefully honed edge. That was for Ellen, first to make sure she didn't scream, then

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to make sure she never would. He had not known their names when he loaded his pockets and left his ranch house in Waterbury, Connecticut, to go in for an evening's sport to the city, but he had known there would be somebody.

He, too, looked up at the comet, but with irritation. In his Connecticut back yard, as he had shown it to his daughter, it had looked pretty. Here it was an unqualified nuisance. It made the night brighter than he wanted it although, he thought in all fairness, it was not as bad as a full moon.

It would not be more than five minutes, he calculated, before the boy would lead the girl in among the evergreens. But which way? If only they would choose his side of the path! Otherwise it meant he had to cross the walk. That was a small danger and a large annoyance, because it meant scuttling in an undignified way. Still, the fun was worth the trouble. It always had been worth it.

With the weighted sock now ready in his hand, the handsome white-haired gentleman followed them silently. He could feel the gleeful premonitory stirrings of sexual excitement in his private parts. He was as happy as, in his life, he ever was.

AT A time approximately two thousand years earlier, when Jesus was a boy in Nazareth and Caesar Augustus was counting up his statues and his gold, a race of creatures resembling soft-shelled crabs on a planet of a star some two hundred light-years away became belatedly aware of the existence of the Great Wall of China.

Although it alone among the then existing works of Man was quite detectable in their telescopes, it was not surprising they had not noticed it before. It had been completed less than 250 years before and most of that time had been lost in the creeping traverse of light from Earth to their planet. Also they had many, many planets to observe and not a great deal of time to waste on any one. But they expected more of their minions than that, and 10,000 members of a subject race died in great pain as a warning to the others to be more diligent.

The Arrogating Ones, as they called themselves and were called by their subjects, at once took up in their collective councils the question of whether or not to conquer Earth and add humanity to their vassals, now that they had discovered that humanity did exist. This was their eon-long custom. It had made them extremely unpopular over a large volume of the galaxy.

On balance, they decided not to bother at that particular time. What were a few heaped-up rocks, after all? Oh, some sort of civilization no doubt existed, but the planet Earth seemed too distant, too trivial and too poor to be worth bothering to conquer.

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Accordingly they contented themselves with routine precautionary measures. Item, they caused to be abducted in their disk-shaped vessels certain specimens of Earthly human beings and other fauna. These also died in great pain and in the process released much information about their body chemistry, physical structure and modes of thought. Item, the Arrogating Ones dispatched certain of their servants with a waiting brief. They were instructed to occupy the core of a comet and from it to keep an eye on those endoskeletal, but potentially annoying, creatures who had discovered agriculture, fire, the city and the wheel, but not as yet even chemical explosive weapons.

They then dismissed Earth from their collective soft-bodied minds, and returned to the more interesting contemplation of measures to be taken against a race of insect-like beings that lived in a steamy high-G planet in quite the other direction from Earth, toward the core of the galaxy. The insects had elected not to be conquered by the Arrogating Ones. In fact, they had destroyed quite a large number of war fleets sent against them.

Nearly a quarter of the collective intelligence of the Arrogating Ones was devoted to plans to defeat these insects in battle. Most of the rest of their intelligence was devoted to the pleasant contemplation of what they would do to the insects after the battle was won to make them wish they hadn't resisted so hard.

WHILE the handsome white-haired gentleman was stalking Myron and Ellen, the second person who wanted, the Secretary of State of the United States of America, was about a hundred miles north of and 40,000 feet above Central Park. He was on board a four-engined jet aircraft with the American flag emblazoned on its prow and he was having a temper tantrum.

The President of the United States was gloomily running his fingers between the toes of his bare feet. "Shoot, Danny," he said, "you're getting yourself all hot about nothing. I'm not saying we *can't* bomb Venezuela. I'm only saying why do we *want* to bomb Venezuela? And I'm saying you ought to watch how you talk to me, too."

"Watch how *you* talk to *me*, Mr. President!" shouted the Secretary of State over the noise of the jets. "I'm pretty fed up with your procrastinations and delays and it wouldn't take much for me to walk right out and dump the whole thing back in your lap. Considering your track record—I am thinking of Iceland—I don't imagine you'd relish that prospect."

"Danny boy," snarled the President, "you've got a bad habit of digging up ancient history. Stick to the point. We've got to have oil, agreed. They have oil, everybody knows that. They don't want to sell it to us at a reasonable price, so you want me to beat on them until they change their minds. Right? Only what you don't see is, there's a right

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way and a wrong way to do these things. Why can't we just go in with some spooks and Tommy-guns, as usual?"

"But their insolence, Mr. President! The demeaning tone of this document they sent me. It isn't the oil, it is the national credibility of the country that is involved here."

"Right, Danny, right," groaned the President. "You can talk. You don't have Congress breathing down your neck at every little thing." He sighed heavily and opened another can of no-calorie soda. "What I don't see," he said, with a punctuation mark of gas, "is why we have to hit them tonight, with Congress still in session."

The Secretary said petulantly, "I have explained to you, Mr. President, that our communications system is malfunctioning. We've lost global coverage. There is strong dissipation of ionosphere scatter, due to interference from an unprecedentedly strong influx of radiation apparently emanating from—"

"Oh, cut it out," complained the President. "You mean it's that comet that's bollixed up our detection."

The Secretary pursed his lips. "Not precisely the comet, no, Mr. President. No such effect has ever been detected before, although it is possible that there is a connection. Doesn't matter. The situation before us is that we do not have total communication at this time. And so we have no way of knowing whether the Venezuelans are treacherously planning a sneak attack or not. Do you want to take a chance on the security of the Free World, Mr. President? I say preempt now!"

"Yes, you've made your point, Danny," said the President. He swiveled his armchair and gazed out at the bright spray of white light across the eastern horizon where Comet Ujifusa-McGinnis lay. "I've heard worse excuses for starting a war," he mused, "but I can't remember exactly when. All right, Danny. We'll do what you say. Get me Charlie on the scrambler and I'll put in the attack in two hours."

THE watchers for the Arrogating Ones, hiding inside the pebbly core of the comet named after the two amateur astronomers who had simultaneously discovered it, studied the results of their radar-like scan of the Earth. This was routine. They were not aware that their scanning had damaged mankind's communications, but that was not their problem. Their only task was to spray out a shower of particles and catch the returning ones to study—this they did, and what their study told them was that the planet Earth had reached redpoint status. It was now well into a technological age and was thus an active, rather than merely a potential, threat to their masters.

The Arrogating Ones were no longer quite as effectively arrogant as they had once been. They had been creamed rather frequently in their millennia-long struggle against the

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insectoids. The score was, roughly, Arrogating Ones 53, Insectoids 23,724. The watchers, knowing this, were aware that at least their task would not under these circumstances involve the actual physical conquest of the Earth. It would simply be destroyed.

This was no big deal. Plenty of mechanisms for wiping out a populated planet were stockpiled in the arsenals of the Arrogating Ones. They had not worked very well against the insectoids, unfortunately, but they would be plenty powerful enough to deal with, say, mankind. The weapons for accomplishing this were readily available at any time, but not to the watchers, who were far too low in the hierarchy of authority to be trusted with anything like that.

Their task was much simpler. They were only required to report what they saw and then to soften up the human race so that it would not be able to offer resistance, even ineffectual resistance, to the clean-up teams when they arrived with their planet-busters.

Softening up was a technical problem of some magnitude, but it had been solved long ago. The abducted humans had died messily but not in vain. At least, from the point of view of the Arrogating Ones their deaths had not been in vain, for in their dying agonies they had supplied information about themselves which had enabled the Arrogating Ones to devise appropriate softening-up mechanisms. The watchers had been equipped with these on a standby basis ever since.

Of course, from the point of view of the abducted humans the question of whether their deaths had been in vain might have had a different answer. No one had troubled to ask them.

At any rate, the watchers now energized the generators which would soften up mankind for its destruction.

While they were waiting for a charge to build up they looked up the coordinates and call signal for the nearest cruising superdreadnaught of the Arrogating Ones and transmitted a request for it to come in and finish up the job with a core-bomb. They then discussed among themselves the prospects of what their next assignment would be. It was not a fruitful discussion. Core-bombs are messy and there was not much chance that Comet Ujifusa-McGinnis's orbit would get them far enough away to be out of its range when it went off. Even if they survived, none of them had any idea what the Arrogating Ones' future plans for the watchers were. All they were sure of was that they were certain not to enjoy them.

WE now turn to Albert Novak. He was in another four-engined jet, climbing to cruising altitude out of Kennedy en route to Los Angeles International. He was a crew-cut young man, with something on his mind. His neighbor was a short,

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white-haired, dark-tanned Westerner with the face of a snapping turtle, who offered his hand and said aggressively, jerking his head toward the window, "That confounded thing! Do you know the space agency wants to spend thirty million dollars of your tax money just to go sniff around it? Thirty million dollars! Just to sniff some marsh gas! Not as long as I'm on the Aeronautics and Space Committee. Let me introduce myself. I'm Congressman—" But he was talking to gas himself. Albert Novak had not accepted his hand, had not even met his eyes. Although the "Fasten Seat Belts" sign was still lighted in three languages, he unstrapped himself and walked down the aisle. Hostesses hissed at him and tardily began to unsnap themselves to make him return to his seat. He ignored them. He had no intention of ever arriving at L.A. International and when he wanted to talk to a hostess he would do so on his own terms. He carried a cassette recorder into a toilet and locked the door against everyone.

The cassette recorder could no longer be used to record or play. He had removed its insides the day before, replacing them with more batteries and a coil of fine wire, which he now carefully connected to thirty Baggies full of dynamite and firing caps he had sewn into the lining of his trenchcoat while his mother nearsightedly smiled on him from across the room.

Although Novak thought of himself as a hijacker, it was not his intention to cause the jet to head for Cuba, Caracas or even Algiers. He did not want the airplane. He didn't even want the one hundred million dollars' ransom he planned to ask for.

What Novak wanted, mostly, was to matter to somebody. As far as he had thought out his plan of action, it was to walk up to a stewardess with his hand on the detonating switch, show her the ingenious arrangement he had gotten past the metal detectors, be escorted to the flight deck in the traditional manner and then, after the airline had begun trying to get together the 5,000,000 unmarked twenty-dollar bills he intended to demand and the maximum of annoyance and confusion had been caused, to close the switch and explode the dynamite.

He knew that in destroying the airplane he would die. That was not very important to him. The one important failure that he regretted very much was that he would not be able to see his mother's face when the reporters and TV crew began to swarm around her and she learned he had been pushing around all kinds of people and thirty million dollars' worth of airplane.

THE generators at the core of Comet Ujifusa-McGinnis were now up to full charge.

Disgruntledly the watchers of the Arrogating Ones sighted the beam in on the planet Earth. They were quite

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careful to get it aligned properly, for they remembered very well what the consequences were for slipshod work. When it was locked in they released the safety switch that allowed the contact to close that discharged the beam.

More than three million watts of beamed power surged out toward the near hemisphere of the planet. Certain chemical changes at once took place in the atmosphere and were borne by jet stream, trade winds and the aimless migration of air masses all around the Earth.

The equipment used was highly directional, but the watchers who operated it were very close and large magnitudes of energy were involved. Some of the radiation sprayed them. There was some loss from corona points, some reflection even from the tenuous gases of the comet's halo.

As the radiation had been designed specifically for use against mankind, on the basis of the experiments conducted on the kidnappees of two thousand years before, it was only of limited effect on the watchers. But they happened to be warmblooded oxygen-breathers with two sexes and many of humanity's hangups, so that the weapon did do to them much what it was intended to do to mankind.

First they felt a sudden, sharp pang of an emotion which they identified (but only by logical deduction) as joy. The diagnosis was not simple, for they had little in their lives that would enable them to recognize such a state. But they looked at each other with fatuous fondness and, in their not really very human ways, shared pleasure.

The next thing they shared was serious physical pain, accompanied by vomiting, dizziness and a feeling of weakness, for they were receiving a great deal more of the radiation than was necessary for the mere task of turning them into pussycats to receive the knockout blow of the Arrogating Ones. They recognized that, too. They deduced that they were dying, and doing it pretty fast.

They did not mind that any more than Albert Novak minded blowing himself up with the airliner. It was worthwhile. They were happy. It was what the ray was intended to do to people and it did its work very well.

AND all over the near side of the Earth, as the radiation searched out and saturated humanity, joy replaced fear, peace replaced tension, love replaced anger.

In Central Park three slum youths released the girl they had lured behind the 72d Street boat house and decided to apply for Harvard, while a member of the Tactical Patrol Force lay down on Umpire Rock and gazed jubilantly at the comet. At the park's southern margin the white-haired gentleman came leaping out at Myron Landau and his girl. "My dear children!" he cried, tugging the women's stocking off his face. "How sweet and tender you are. You remind me so much of my own be-

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loved son and daughters that you must let me stand you to the best hotel room in New York, with unlimited room service."

This spectacle would normally have disconcerted Myron Landau, especially as he had just succeeded in solving the puzzle of Ellen's bra snap. But he was so filled with the sudden rapture himself that he could only say, "You bet you can, friend. But only if you come with us. Ellen and I wouldn't have it any other way."

And Ellen chimed in sweetly: "What do we need a motel room for, mister? Why don't we just get out of these clothes?"

Forty thousand feet directly overhead, as the Presidential jet sped back from the Summer White House near Boothbay Harbor, Maine, the Secretary of State lifted eyes streaming with joy and said, "Dear Mr. President, let's give the spics another chance. It's too nice a night to be H-bombing Caracas." And the President, flinging an arm around him, sobbed, "Danny, as a diplomat you're not worth a bucket of warm snot, but I've always said you've got the biggest damn heart in the cabinet."

A great bubble of orange-yellow flame off on the western horizon disconcerted them for a moment, but it did not seem relevant to their transcendental joy. They began singing all the good old favorites like *Down By the Old Mill Stream, Sweet Adeline* and *I've Been Working on the Railroad,* and had so much fun doing it that the President quite forgot to radio the message that would cancel his strike order against Caracas. It did not matter very much. The B-52 ordnance crews had dumped the bombs from the fork lifts and were now giving each other rides on them, while the commanding general of the strike, Curtis T. "Vinegar Ass" Pinowitz, had decided he preferred going fishing to parachuting into Venezuela in support of the bombing. He was looking for his spinning reel, oblivious to the noise on the hardstand where the 101st Airborne was voting whether to fly to Disneyland or the Riviera. (In any event, the Venezuelans, or those members of the Venezuelan government who were bothering to answer their telephones, had just voted to give the Yankees all the oil they wanted and were seriously considering scenting it with jasmine.)

The ball of flame on the horizon, however, was not without its importance.

Arnold Novak had released the armlock he had got around the little brown-eyed stewardess's neck and had begun to try to explain to her that his intention to blow up the jet meant nothing personal, but was only a way of inducing his mother to pay as much attention to him as she had, all through their lives, to his brother, Dick. Although he stammered so that he was almost incoherent, the stew understood him at once. She, too, had had both a mother and an older brother. Her

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pretty brown eyes filled with tears of sympathy and with a rush of love she flung her arms around him. "You poor boy," she cried, covering his stubbly face with kisses. "Here, honey! Let me help you." And she caught the cassette from his hand, careful not to pull the wires loose, and closed the switch that touched off the caps in all the thirty Baggies.

One hundred and thirty-one men, women and children simultaneously were converted into maltreated chunks of barbecued meat falling through the sky. Their roster included the pilot, the co-pilot, the third pilot and eight other members of the flight crew; plus, among the passengers, mothers, infants, honeymooning couples, non-honeymooning but equally amorous couples who did not happen to be married to each other, a middle-aged grape picker returning home after a five-days-four-nights all-expense tour of Sin City (which he had found disappointing), a defrocked priest, a disbarred lawyer and a Congressman from Oregon who would never now achieve his dream of dismantling NASA and preventing the further waste of the taxpayer's funds on space, which he held to be empty and uninteresting.

Whoever they had been when whole, the pieces of barbecue all looked pretty much alike now. It did not matter. Not one of the passengers or crew had died unhappy, since they had all been touched by the comet.

AND deep inside the core of the comet Ujifusa-McGinnis, the device which was meant to display the wave forms signifying receipt of the destruction order for Earth remained blank. No signal was received. No one would have observed it if it had been, certainly not the watchers, but it was unprecedented that a response should not be received.

The reason was quite simple. It was that that particular superdreadnaught of the Arrogating Ones, like most of the others in their galactic fleet, had long since been hurled against the fortresses of the insectoids of the core. There, like the others, it had been quickly destroyed, so that the message sent by the watchers had never reached its destination.

It was, in a way, too bad, to think of all that strength and sagacity spent with no more tangible visible result than to give pleasure to a few billion advanced primates. Although this was regrettable, it did not much bother the Arrogating Ones. They had plenty of other regrets to work on. What remained of their collective intelligence was fully taken up with the problem of bare survival against the insectoid fleets—plus, to be sure, a good deal of attention given to mutual recrimination.

The watchers did not mind; they had long since perished of acute terminal pleasure.

And, as it turned out, they had not died entirely in vain.

Because the Oregon congressman

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did not live to complete his plan to dismantle NASA, all his seniority and horse-trading power having perished with him, the projected comet-study mission was not canceled. To be sure, the bird did not fly on schedule. The effects of the joy beams from the comet did not begin to wear off for several days and the NASA technicians simply could not be bothered while their joy was in its manic phase.

But gradually the world returned to—normal? No. It was definitely not normal for everyone to be feeling rather cheerful most of the time. But the world settled down, sweetly and fondly, to something not unlike its previous condition of work and play. So the astronauts found another launch window and made rendezvous with the comet; and what they found there made quite a difference in the history of both the human race and the galaxy. The watchers were gone, but they had left their weaponry behind.

When the astronauts returned with the least and weakest of the weapons, all they could cram into their ship, the President of the United States gave up his shuffleboard game to fly to the deck of the *Independence* and stare at it. "Oh, boy!" he chortled, awed and thrilled. "If that'd turned up two months ago Brazil would've had a seaport on the Caribbean!" But Venezuela went about its business untouched. The President was tempted. Even cheerful and at peace with himself and the world, he was tempted—old habits die hard. But he had several thoughts and the longest and most persuasive of them was that weaponry like this meant that somewhere there was an enemy who had constructed and deployed it and some day might return to use it. So with some misgivings, but without any real freedom of choice, he flew back to Washington, summoned the ambassadors of Venezuela, Cuba, Canada, the U.S.S.R., the People's Republic of China and the United Irish Republics of Great Britain and laid everything before them.

Although politicians, too, were residually cheerful still from the effect of the comet, they had not lost their intelligence. They quickly saw that there was an external foe—somewhere—which made each of them look like a very good friend. Nobody was in a mood to fool with little international wars. So treaties were signed, funds were appropriated, construction was begun.

And the human race, newly armed and provided with excellent spaceships, went looking for the Arrogating Ones.

They did not, of course, find them. By the time they were ready to make their move, the last of the Arrogating Ones had gone resentfully to his death. But a good many generations later humans found the insectoids of the core instead and what then happened to the insectoids would have satisfied even the Arrogating Ones. ★

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SCIENCE FEATURE

ECLIPSE EXPEDITION INTO THE SAHARA

A first-hand account of that historic trek to Mauritania in pursuit of lunar shadow!

ERNEST TAVES

ECLIPSES of the sun, be they partial, annular, or (above all) total, are one of nature's great spectaculars. In ancient times eclipses were regarded as portents—now, to contemporary astronomers and astrophysicists, they are rare and unexampled opportunities to learn more about the nature of the universe, including such matters as the thermonuclear processes taking place within the sun and its complex atmosphere.

The total solar eclipse of June 30th, 1973 was notable in that its period of totality—seven minutes and four seconds—tied for second place as the longest in the last 1,433 years. The moon's shadow first touched Earth just after dawn, in South America, near the border of Guyana. It then swept across the Atlantic Ocean to strike the African coast at Mauritania. The path of totality continued through drought-stricken Mali, Algeria, Niger, and Chad, then across the Central African Republic, Sudan, Uganda, Kenya and the Somali Republic. The moon's shadow left Earth, at sunset, in the Indian Ocean.

(Some scientists pursued the shadow eastward over Africa in speedy aircraft, thus observing up to seventy-two minutes of totality, something new in eclipse history.)

Though much of the country through which the shadow passed was inhospitable or downright hostile, numerous expeditions were mounted to record and study this eclipse. One of these, under the direction of Dr. Donald H. Menzel, and sponsored by the Harvard College Observatory, the Smithsonian Astrophysical Observatory, and the National Geographic Society, was based in the Sahara Desert eight miles northeast of Akjoujt, Mauritania. I was privileged to accompany

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this expedition as Assistant Director.

Through the organization of logistics by Educational Expeditions International, with the cooperation of Quest 4, an England-based professional expedition outfitter, more than thirty amateur enthusiasts were able to participate in this venture into the desert.

The personnel of the expedition comprised a scientific staff of eleven, the group of more than thirty amateurs, a number of media representatives, an Educational Expeditions International staff of seven and a Quest 4 staff of eight. For this expedition Quest 4 traveled by land and ferry from England to the eclipse site in a caravan of Land Rovers, Range Rovers and Bedford lorries.

The prime, though not the only, mission of an eclipse expedition is to record and study an array of phenomena related to the solar atmosphere, which is visible only when the sun is entirely occulted by the moon. (Though an eclipse may, to a degree, be simulated by a coronagraph—a telescope fitted with a number of devices, including filters and an occulting disk—there is no substitute for the genuine article.)

The solar atmosphere includes the chromosphere (the gaseous envelope surrounding the sun immediately outside of the photosphere) and the corona (the luminous envelope beyond the chromosphere). Their study requires an extensive assemblage of instruments, including telescopes, cameras and spectrographs. This apparatus varies in size, but some are large and must be mounted upon concrete piers, whose construction is something of a problem in the Sahara. Oddly enough, one of the problems is obtaining the right kind of sand. Sand is everywhere, but the typical Saharan sand is not suitable for the mixing of high-quality concrete.

To study the solar atmosphere during this eclipse the expedition transported to the desert, among other instruments, a number of spectrographs and an eight-inch off-axis cassegrain 35-foot focal length telescope.

A secondary mission of the expedition was to conduct an Intramercurial Object Search, whose purpose was to attempt to discover hitherto unknown celestial objects (perhaps a tenth planet, undiscovered as yet, but tentatively named Vulcan) between the orbit of Mercury and the sun, such objects also being visible only during total solar eclipse. For this study an equatorially mounted K-38 aerial camera was used.

Yet another mission, which was my particular responsibility, was to perform for the Ionospheric Physics Laboratory of the Air Force Cambridge Research Laboratories an experiment to determine the effect of the eclipse upon the Faraday polarization of a (nominal) 137 mHz radio signal transmitted to the eclipse site (and elsewhere, of course) by a geostationary communications satellite (Intersat 2F3) approximately overhead. This required the use of two seven-element Yagi antennas, a polarization tracking receiver and a two-channel recorder.

The satellite provided a convenient source of a polarized radio signal. The elements of the two Yagi antennas, mounted on a single boom, were at right angles to each other. As

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the radio signal passed through the ionosphere its plane of polarization was rotated, as a function of the Total Electron Content (TEC), in accordance with the Faraday Effect. Thus the signal would be received relatively strongly or weakly by the two antennas, depending on its state of polarization. The point of the experiment was, then, to measure the effect of the eclipse on the TEC of the ionosphere.

In fact, though the eclipse was total on the ground, preliminary calculations indicate that it was but 98.57% total at the ionosphere—an arbitrary distance from the Earth's surface of 420 kilometers was used for this calculation. The outputs from each antenna were separately fed into a pen-and-ink recorder and for ten days the sawtooth patterns appearing on the chart paper were the focal point of my daily activities.

MAURITANIA is a desert country, inhabited by about one million one hundred thousand people. The population is eighty per cent Moorish, of mixed Arab and Berber stock. Negroes comprise about twenty per cent of the population. The official language of the country is the Hassaniyah dialect of Arabic, but the working language is French. Population density is less than three per square mile, one of the lowest in Africa. Life expectancy is forty to forty-five years.

This is a land of eight million sheep and goats, and 700,000 camels—at least this was so before the present drought, which has afflicted the country for years. Because of the drought animals are dying and nomads, threatened by the decimation of their herds, are moving toward the towns. A massive international relief effort is now under way. If it does not succeed many Mauritanians will die of famine.

To get to Akjoujt from the eastern United States—from where most of the equipment and many of the participants came—one jets from JFK to Dakar, Senegal. Here you sit in the terminal building for some hours waiting for an Air Afrique plane to carry you north to Nouakchott, the capital of the now independent Islamic Republic of Mauritania. And if you have not been in this clime before, getting off that plane, any time near midday, is a memorable experience. I thought I was walking into the exhaust of a jet engine, but it was only the proximity of the desert.

From Nouakchott one proceeds about 150 miles northeast to Akjoujt by Land Rover or other rugged vehicle, carrying a plentiful supply of water and of gasoline. Our hegira thence was most welcomely interrupted by the hospitality of Ambassador Richard W. Murphy, who thoughtfully placed the amenities of the embassy, including a swimming pool, at our disposal.

The road from Nouakchott to Akjoujt is one of the very few hard-surfaced roads in the entire country. Along the way you see the inevitable camels, flocks of goats, an occasional cluster of bedouin tents. Otherwise it's sand, scrub, and wind. It doesn't take long to understand that water and shade are the keys to survival.

Akjoujt is a company mining town situated near an extensive deposit of rich copper ore. The company is

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Somima, partly owned by the Mauritanian government, partly by *Anglo-American.* Akjoujt is an oasis and there is water underground, but the principal water supply is piped from a distant source—a potentially hazardous situation, as we were to learn later.

The expedition encampment, a colorful assemblage of many small tents and two large ones, was located about eight miles northeast of Akjoujt, a few hundred yards off the crude graveled road leading to Atar. An advance party had preceded us and when we arrived packing cases were strewn about, cameras were everywhere, and telescopes, coelostats, and other apparatus were all around.

Sand gets into everything in the desert, which makes an astronomic venture a challenging one to the investigator and to his instruments, which must be housed, protected and unendingly brushed free of sand. An entirely lightproof film holders, left for any time in the desert wind, will accumulate within itself a troublesome amount of fine sand. Materials to hand and the limited supplies available in Akjoujt were used to construct shelters and housing for much of the gear.

The expedition force was by no means isolated from the community of Akjoujt. Members of the scientific staff made a presentation to the grade-school children, and Dr. Menzel gave slide-accompanied lectures to both the European and the native adults. We passed out hundreds of protective viewing filters to the friendly Moors.

Nor were we entirely isolated from the rest of the world. Thanks to the efforts of our Communications Officer, Lee Davy (W4FCU), an amateur radio station—our sole contact with the outside—was in operation throughout the expedition, using the call 5T5EEI. Special permission to handle third-party traffic was granted to this station, for the duration of the expedition, by the Mauritanian government and the Federal Communications Commission. Thus expedition participants were able at times to be in touch, via radio-telephone, with their families.

The plan was for this station to be operated at the campsite, but again conditions made this impossible. The station was maintained in Akjoujt in the temporary Porta-Van home of Jean-Pierre Coulondre (F5LO/5T5LO), the only active amateur radio operation in Mauritania and a very good friend of the expedition, to whom we owe much.

5T5EEI originated almost a hundred messages and received and delivered twenty-six, in addition to running forty-three phone patches.

ON ANY eclipse expedition there is always the chance, of course, that the entire effort will be wiped out, possibly at the very last minute, by bad weather. Dr. Menzel's record—and no one has seen more eclipses than he, though one astronomer is tied (Charles H. Smiley of the Ladd Observatory, Brown University)—was, prior to this eclipse, eleven successful expeditions out of fourteen tries. At our site the pre-eclipse information available indicated these conditions: airborne dust present an average of seven days in June, three days in July; no significant rain in Akjoujt for the last

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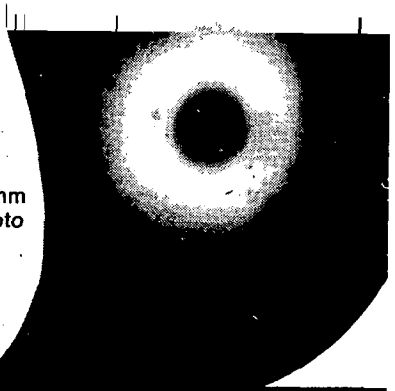
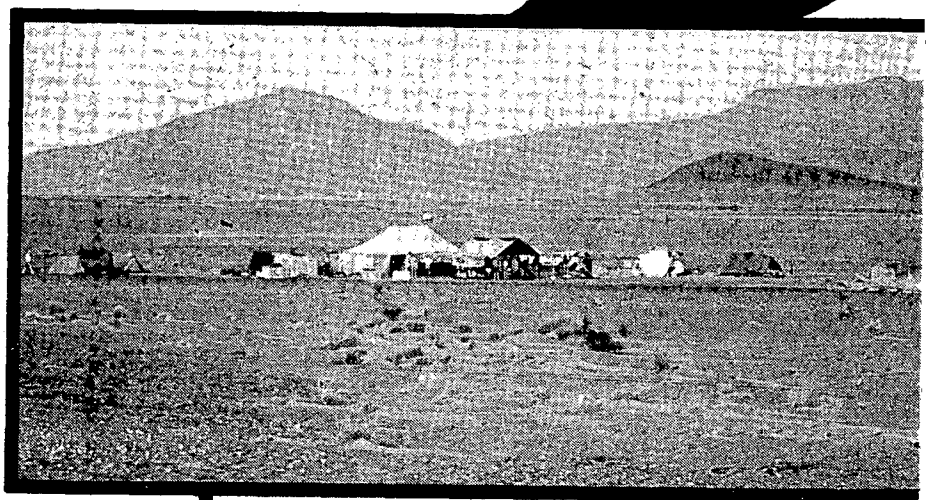
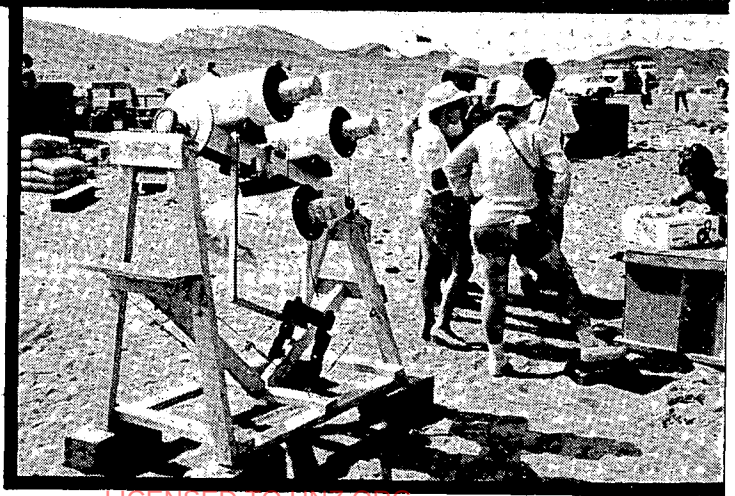
SAHARA SCIENCE



Eclipse 1973! Shot with hand-held 35mm *camera, no telephoto*

Distance lends enchantment to luxuryless camp (below)





This three-camera battery permits studying corona polarization in *different lights*

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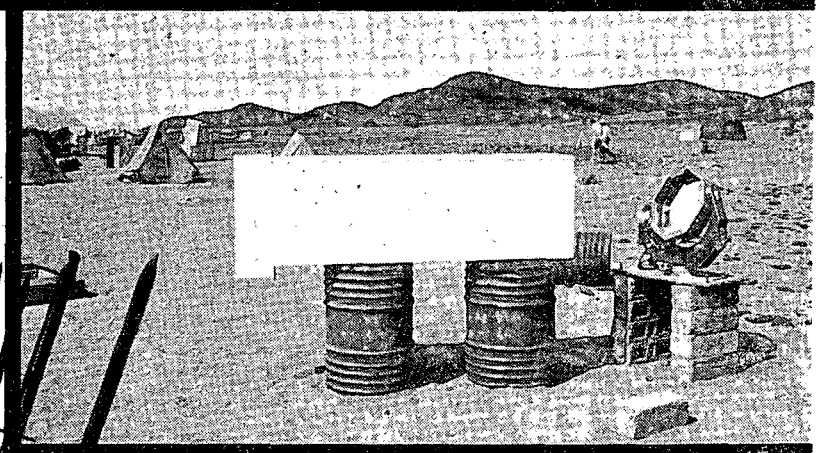
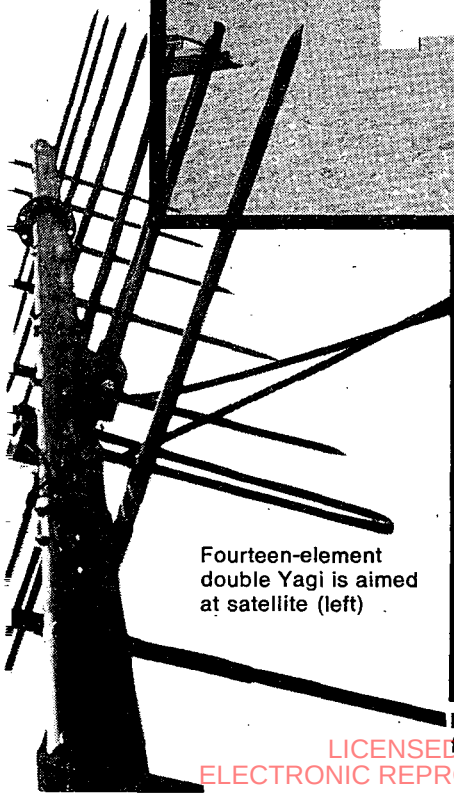
The buildings at Akjoujt share mysterious facades

Coelostat and small spectrograph are set up on mounts improvised from oil drums and concrete blocks (below)





Fourteen-element double Yagi is aimed at satellite (left)

Dr. Menzel demonstrates use of filter for safe eclipse viewing

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eleven years; haze commonly present; now and then an overwhelming sandstorm. The consensus among the scientists was that the odds favoring a reasonable clear view were about seven or eight out of ten.

The lowest night temperature noted at the expedition site was 79°F. but the average low was considerably above that. On at least one occasion the midnight temperature was 108°. Midday temperatures ranged approximately from 105° to 115°. Accordingly, the expedition plan called for air conditioning in the desert. An eclipse expedition must have, of course, a photographic darkroom since procedures must be tried out first, under ambient conditions, to ensure success at the moment of totality. Some apparatus works well the first time, some doesn't. Light leaks, for example, occur in disconcerting places—these must be remedied. We were to have our air-conditioned darkroom, plus an air-conditioned work tent, at the campsite. But if things can go wrong they will, as is known, and in this case the generators provided were totally inadequate to power the too-large air conditioners.

An air-conditioned apartment was available in the Somima enclave in Akjoujt—this was meant to house Dr. and Mrs. Menzel. And it did, but it also housed the darkroom—into which the kitchen was converted. Let the record show that Mrs. Menzel accepted this intensive violation of her kitchen with grace. The apartment also housed my temperature-sensitive polarization receiver, which would have failed to operate at desert temperatures. It also housed me, since a close eye on my temperamental apparatus was required.

AT DUSK on Thursday, June 28th, two days before the eclipse, there occurred a sandstorm of sufficient severity to cause the cancellation of a scheduled rehearsal of the procedures to be undertaken by the expedition personnel during the eclipse. On Friday, the day before the eclipse, weather conditions at what would be eclipse time the next day were marginal. The sun was visible, but not clearly so, and people walked about with fingers crossed.

On eclipse day the sun rose at 06 21 Universal Time (UT) which was also Greenwich Mean Time (GMT) locally. One hour after sunrise the haze and cloud cover were such that I—eight miles from the expedition site, alone at my air-conditioned apparatus—could safely examine the sun with the naked eye. This was not good and this condition obtained through 08 00 hours. Worse, at 09 00, twenty-five minutes before first contact (the moment when the moon begins to occult the sun) the sun was completely obscured by cloud. At 09 15 the sun was barely visible through a high-density filter. The cloud cover then disappeared as if by miracle and at first contact—09 25 06 UT—the sun was clearly visible through light haze, with some remnants of the cloud cover passing over the solar disk. By second contact—the beginning of totality, at 10 41 11—conditions were very good. The sun was eclipsed and the corona shone forth.

Whether you have previously seen no eclipses—or fourteen—the appearance of the corona surrounding the dark of the occulting moon is, simply, stunning. Missing the excite-

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ment of the group activity at the expedition site, I shared these extravagant moments with two members of the Mauritanian equivalent of our National Guard, assigned to protect our quarters from 'undesirables'—of which we at no time saw any evidence. I explained that it was now possible to view the spectacle without protection. We stood there, a quiet group of three, each lost in his own thoughts.

Then, at 10 47·16, after more than six minutes of totality, came the brilliant flash of the sun's reappearance. I shouted a warning to the *gendarmerie* to use their filters henceforth and dashed inside to my instruments to mark the time. Conditions remained good until fourth contact—the moment at which the disk of the sun is again entire—at 12 13 17. Shortly thereafter there was a moderate sandstorm. The expedition had lucked through.

ON an eclipse expedition into the Sahara things do go wrong, however, before, during, and after the main event. I have mentioned the water supply to Akjoujt (and to the expedition site—the expedition's large water bladders were filled in Akjoujt). A few days before the eclipse the pipeline failed, some sixty miles from Akjoujt. A tank of considerable size, perched upon a hill near the copper mine, kept the water running until the next day—when the faucets went dry. It is not pleasant to have your water supply threatened in the Sahara. Mineral water was in great demand and bathtubs and all other available containers had been filled in advance. And, at vast expense, the mine had been forced to shut down—the familiar clouds of smoke were not to be seen.

It was said that the site of the failure was in a low place, thus creating a small lake, to which animals came to drink from miles around. To restore water to the town the lake had to be pumped out and the pipeline had to be emptied and repaired. And this was done. Within forty-eight hours the faucets were running again and smoke was coming from the mine—a pleasant sight, environmental considerations apart. The mine can't operate without enormous amounts of water.

Other things went wrong. A spectrograph shutter jammed ten minutes before totality. At least one other important camera failed and could not be made to operate in time for totality. Conditions reasonably good for spectrographic study were probably not adequate for the Intramercurial Search. Robert Fisher, who was in charge of this program, was able, however, during totality, to view a fourth-magnitude tracking star. At this writing the films have not been developed, but Fischer's present attitude is one of cautious optimism. In general, the consensus of the scientists was that the expedition was a success.

Most of the important films were brought back to the States for processing and the results obtained are unavailable at the time this is written. My own experiment—which was expected to be workable in any weather condition—was apparently successful; the data have been partly reduced, though the baseline for comparison has not yet been established. Preliminary indications are that minimum electron content oc-

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curred—to the nearest minute—at 10:44, some five minutes after the appearance of almost 99% totality *in the ionosphere.* This is a smaller time delay than expected, but these measurements have not been made in such near-equatorial latitudes before. It is hoped that the results of this experiment will be published shortly.

Some films were developed in the kitchen-darkroom before breaking camp. Jonathan Kern, using a six-inch refractor fed by a ten-inch single-mirror coelostat, obtained some striking photographs of the corona, clearly showing the presence of streamers—which are characteristic of coronas seen at sunspot minimum. Kern used, for his photography of the corona, a radial filter located in the focal plane of the optical system, whose purpose was to attenuate the light of the inner corona by a factor of about 700, in order to obtain useful photographs of the outer corona out to about four sun radii.

It is not, however, my intention to dwell here on the technical aspects of the expedition. I have wished, rather to give a general idea of how it is to mount an eclipse expedition into a hostile environment.

I spoke later on eclipse day to those who had been at the camp and was told of a variety of happenings. A number of Bedouins were there, and as the moon began to occult the sun they turned toward Mecca in prayer. Prayer for *what* I don't believe anyone discovered. They completed their obeisances well before the time of totality, which they watched with rapt interest.

And, even as at Cape Kennedy, where an ancient black, present at the launch site, denied any possibility that the Apollo mission was going to the moon, so an elderly Bedouin declared that the sun could not and would not be eclipsed. Later, faced with the awesome reality, he said, "Well, the Americans are very powerful."

Thinking about the end of the expedition, impressions come fast and tend to coalesce. On eclipse night there was a lamb barbecue, with Moors wielding murderous knives with a skill reminding me of chefs in first-class Japanese restaurants. Then, next morning, another ride through 150 miles of desert to Nouakchott, and again a welcome from Ambassador Murphy, a dedicated diplomat deeply concerned about Mauritanian problems. His hospitality will be remembered by many.

That afternoon Dr. Menzel was awarded, by President Moktar Ould Daddah, the Mauritanian Medal of Honor.

Then to the airport, and the usual interminable delay. Finally we were allowed to board an Air Afrique Caravelle. Every seat was taken, and one or two persons squatted in the aisle. And—the cargo compartment being full—a number of large chests (containing films exposed but not processed, cooled by dry ice) were brought on board and put into places not normally utilized for baggage.

From my seat I could see the runway ahead, but I averted my gaze at takeoff. I think, though, that the pilot, who wore a worried expression upon his black countenance, used every inch of it. I had never before, on any flight, heard a round of applause and cheers as the aircraft became airborne. I did now, and my cheers were as loud as any. ★

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★ ★ ★ GALAXY STARS ★ ★ ★

In the photograph on this page you may note how *Playboy* sees Ernest H. Taves, M.D.: master of sophisticated prose and connoisseur of French wines. In the pages preceding you may observe him as science and science fiction see him: a dedicated researcher of Earth's *environs*—French for "out there."

Speaking of views of Ernest—to the reader who wrote in following *Galaxy's* publication of *Mayflower One* (Nov.'73) to ask if Ernest Taves could be a *nom de plume* of Theodore Sturgeon the answer is no, it could not. Everybody would object, including us. But with this issue the two men come to share one distinction: Ernest becomes the second author with a wide enough range to have his byline appear twice in the same issue of *Galaxy*. Ted lent us his strength twice in October.

So much for our side.

Here is Ernest:

"I began writing science fiction later than most and came to this activity via a circuitous route. I was born and raised in the Snake River Valley of southeastern Idaho, but during college years gravitated to New York City—Columbia College and University, where I obtained a number of degrees. My interest at that time was in experimental psychology and I was also into parapsychology, to which I devoted considerable time. I received the first (and only, as far as I know) M.A. degree granted by the Department of Psychology for parapsychological research. My Ph.D from the same institution was more legitimate, having to do with visual perception.

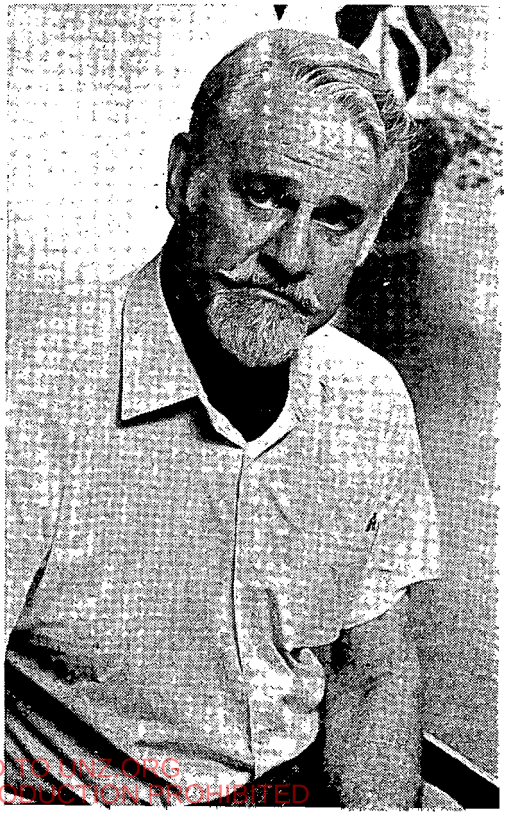
"I abandoned academic life in favor of medical school, took a medical degree from New York University. This led into military service and eighteen months in Yokohama as Chief of the Neuropsychiatric Service of the 155th Station Hospital. After discharge came psychoanalytic training, followed by some twenty years of practice, first in New York, later in Cambridge, Massachusetts.

"I had wanted to write during those years, but in the press of other circumstance had never really gotten into it. Now, in the view that twenty years is enough to spend doing any one thing, I phased out of medical practice and into writing.

"I sold my first short story (not science fiction) to *Playboy* in 1969. This hooked me on writing. Then, having been interested for decades in the mysteries of Stonehenge, I wrote a science fiction story about that (*Second-hand Stonehenge*), which was bought by *Galaxy*. And this hooked me on science fiction.

"I'm married and my wife and I divide our time between Cambridge and New Hampshire (where we are much involved with conservation) and, now and then, other parts of the world. We have one son, Henry, a physics major at Harvard. One of his many current interests is to restore the railroad to contemporary America.

"My own other interests include astronomy, electronics, amateur radio, chess, French wines and other disciplines beyond mention."



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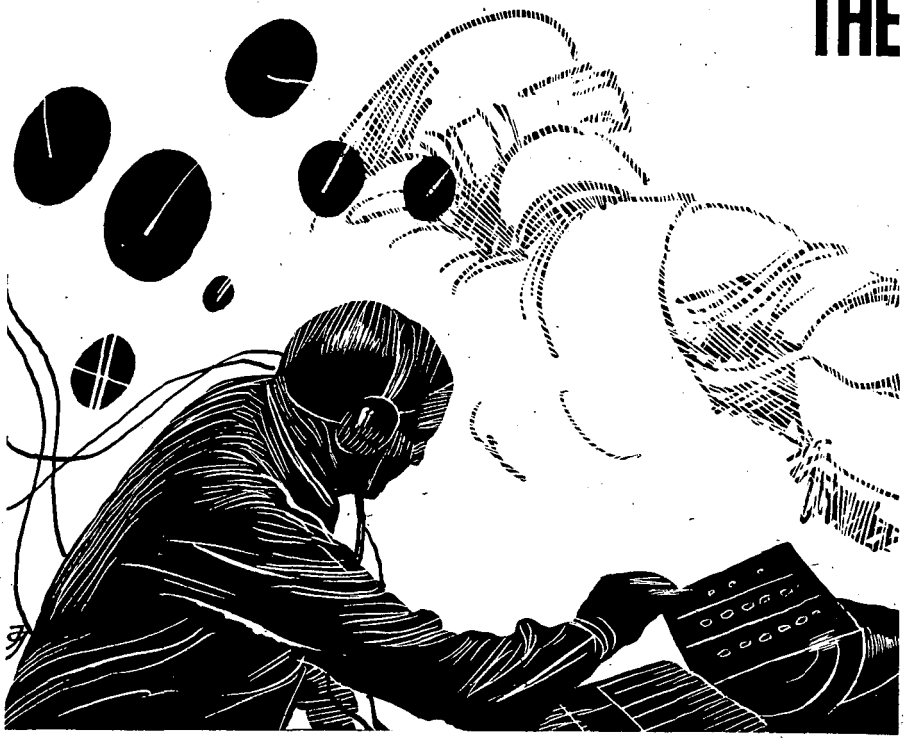
THE



WHAT HAS GONE BEFORE

John Devlin is awakened from cold sleep by ship's computerized system and told he's seventy-five years into mission: man's first attempt to colonize a star system other than his own. He is computer-instructed to check ship's systems, then his own voluntary; involuntary bodily functions, circulation, sensorium, speech organ and memory. His period of awakening is for one hour. During this time he is to speak, exercise and try to remember his cold-sleep dream. In his dream he was a primitive, ocean-dwelling life form, inordinately hungry—and was himself eaten by a carnivorous cephalopod while eating a trilobite.

His second awakening comes 282 years into mission. His instructions are as before, but in addition he's told to go to the ship's control center to evaluate target system #3. The ship's computer had bypassed the first two target star systems as unsuitable for human colonization. Number 3 is a perfect, Earth-type planet, unpolluted and verdant—but

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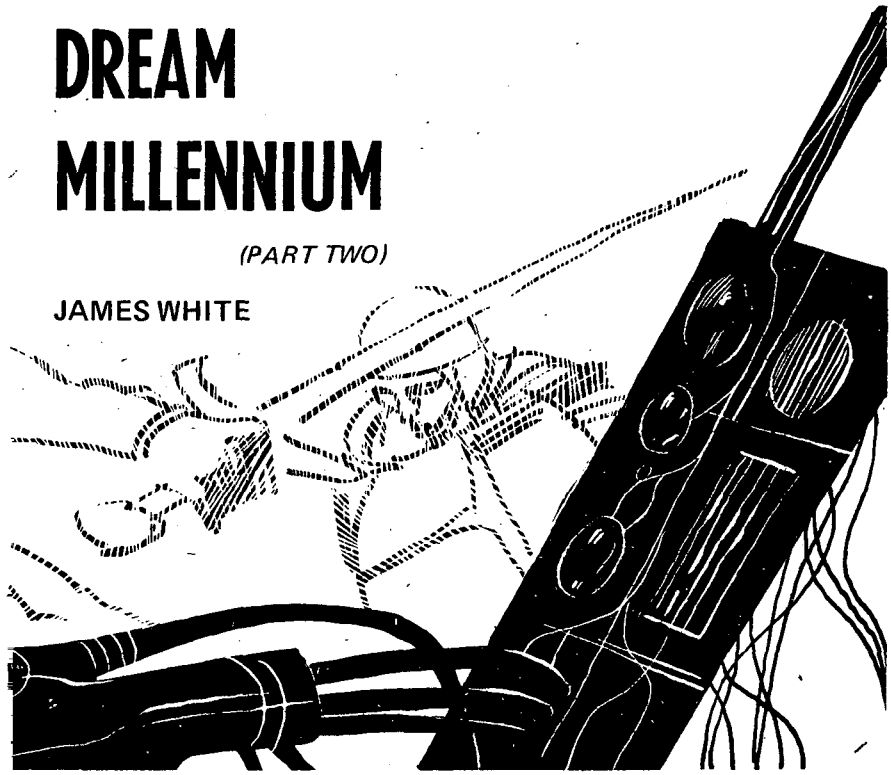
DREAM MILLENNIUM

(PART TWO)

JAMES WHITE



is entering Roche's limit and will soon break up to become a ring system around its primary. DEVLIN rules no landing, obediently remembers last cold-sleep dream: in it he was an enormous brontosaurus and was killed by a small, carnivorous allosaurus.

On his next awakening–323 years into mission–he is told to check a malfunction in Blue 31, a colonist cubicle, and discovers Colonist YVONNE CALDWELL, 18 biological years old, improperly frozen and dying. At the end of her last waking period she had tried to communicate with her boy friend, also a colonist, and had not made it to her cold-sleep casket in time. DEVLIN makes her death as comfortable as he can. Before returning to cold sleep he is required to remember a complete day in his life before starting on mission.

He had been a physician and remembers three instances of violence he had attended on an Earth made uninhabitable by its inhabitants: 1) a young man wounded as a bystander in a duel between his father and

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father-in-law; 2) a lovely young girl, PATRICIA MORLEY, who had disfigured her face to discourage murderous duels between her suitors; 3) a dead boy, victim of a chance bullet fired during riot in a distant part of town. During the same day he also meets a rather mysterious man known as BROTHER HOWARD.

DEVLIN's fourth awakening is for the purpose of evaluating another possible habitable star system. The system is already inhabited by highly technologically advanced aliens who have polluted it and send spacecraft to destroy DEVLIN's ship. He performs evasive action.

IX

IT SEEMED to Devlin that all his life had been spent trying to pass tests, failing most of them—and then trying to escape the results of the failures. He was trying to escape the latest failure by fleeing into cold sleep, but the computer was being awkward.

NEGATIVE TO REQUEST FOR IMMEDIATE COOLDOWN. CARRY OUT INSTRUCTION REMEMBER. COOLDOWN IN ONE HOUR THIRTY-FIVE MINUTES.

Devlin did not want to remember anything, neither his own past life nor the bright, pleasant and often agonizing dream lives. The process of memory was one of the Devlin organic systems capable of being checked by a temporary Hold, but it could not be switched off.

Not only was it becoming impossible for him to forget anything of importance, but even the most trivial incidents were coming back to him with a clarity and intensity that made him wonder if someone—or some medically programed process—could be feeding him psycho-augmenter drugs. He did not know and he could be sure of nothing. His only means of defense against a recall of too-painful memories was to concentrate on one of the less unpleasant days in his life.

The day he had decided to recall had begun pleasantly. There were only three patients in morning surgery and he had no private visits scheduled. The preceding two weeks had seen a sudden upsurge in block security casualties and affairs of honor within the building, but now the area was entering a period of relative sanity which, experience had taught him, might last for a few days. His last patient had been Patricia Morley, the girl with the lacerated cheek.

"It is healing nicely," Devlin said as he renewed the dressing, "but there will be scars. Are you sure you won't have plastic surgery?"

"No," she said firmly.

This was her fourth visit to the surgery and he had twice spoken to her in the recreation hall, so that their time together totaled no more than three hours. Her face was no longer giving her pain and, although she still considered her reason for inflicting the wound a good one, she remained normal enough to want to

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hide the scars behind a no longer necessary dressing. Soon she would cease to need him as a doctor. Devlin was glad about that, but a little worried that she might have to swap him for a psychiatrist.

Sufferers in silence, even those who could do so without complaint or outward show of distress, were still sufferers.

It was clear that she wanted to talk about her problem—which was, fundamentally, a non-surgical one—and she was not a wailer, a martyr to misfortune or a potential suicide. Devlin would not in the least mind listening to her, but in their present surroundings the conversation stayed on a much too clinical level.

"It's a fine, sunny day," said Devlin. "I advise you to get some fresh air and exercise in the district park."

She laughed at that because the fresh air of the city was anything but—and compared unfavorably with the cooled and filtered hurricane that whistled continually from the building's main air ducts.

"It is three miles away," Devlin went on, "which should be exercise enough if you go on foot. But to make sure that you are following doctor's orders I shall call at the park on my way back from morning rounds. If you look to be on the verge of exhaustion I shall offer you refreshment and a ride back."

"As a form of exercise," she replied, "it beats the nightly epilepsy to music in the rec hall. All right, Doctor, I'll follow the prescribed treatment. But isn't this a very complicated way of asking for a date?"

"It is?" asked Devlin—then more honestly he added: "It is."

BUT he had good reasons for circumspection, Devlin thought as the girl left his surgery, and she understood them just as well as he did. The rec hall had held too much noise and not enough light for their few chaperoned meetings to have been generally noticed, but driving her away from the block in his car after passing through the security checkpoint which, at this early and safe time of the day was manned by overly talkative oldsters, would cause comment. Giving her a lift back in his medic's vehicle, considering the fact that her dressing would make her look like a walking casualty, would not give rise to any talk.

There was also the fact that as a member of a non-belted profession he was nominally a citizen, but actually, as far as the younger belt-wearers in the block were concerned, a sheep pretending to be a citizen. The girl had already suffered too much as a result of young citizens' offering her unwanted protection and, in at least two cases, killing her men friends. They could not, of course, challenge Devlin to an affair, but they could make life unpleasant for him in many ways if he made them envious—or even annoyed them with the thought that a sheep might

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win a girl a citizen had lost.

Devlin wanted to help the girl and he liked her company, but he was cautious by nature.

The city park for that area was a tiny island of greenery surrounded by an enormous car park provided for its users. The car park was three-quarters full, Devlin noticed as he found a slot close to the main entrance. This meant that the park itself was relatively uncrowded. He also saw, without really noticing them, the signs warning against the carrying of weapons inside the park and the city security men in full riot gear who lost interest in him as soon as they saw his walking-out whites. Beetle-like inside his air-conditioned armor and his features hidden by the reflections in his visor, the security sergeant waved him past the search point, as he had waved on the black-garbed figure who had preceded Devlin by a few seconds and who had halted inside the entrance.

Hearing Devlin's footsteps behind him the man turned suddenly and smiled. It was Brother Howard.

"Good morning, Doctor," he said pleasantly. "I was hoping to meet you again. Do you mind if we walk together?"

"I'm meeting someone—" began Devlin.

"I understand," said Howard, holding Devlin's gaze until the Brother could have no doubt that the doctor was telling the truth. Then he looked at this watch and went on: "But you strike me as being a methodical individual, Doctor, who would be inclined to make appointments, professional or social, exactly on the hour. It wants eighteen minutes to the hour, and if you could spare me those few minutes for a talk—"

He kept pace with Devlin, waiting.

The truth was, Devlin realized suddenly, that he did not know how long Patricia would take to reach the park—she might even have changed her mind about coming. He was tempted to be impolite to Howard. But the man had not been discourteous to him, merely a little too insistent and Devlin had survived this far by being as polite as possible to everyone.

"My pleasure," he said.

BUT the Brother said very little during the first few minutes and Devlin began to relax and enjoy the slow, silent pacing between the flower beds and under the trees.

Many other parks in the city featured artificial plants, but the trees in this one were real. Transparent plastic protected the first few yards of their trunks against vandals and name-carvers. The flower beds, which had less obtrusive, electronic protection, were real as well, as evidenced by the delicate and natural scents leaking into the air and the number of bees in the area. The turf underfoot was fresh, green and springy—it had to be a hardwearing synthetic to remain in that condition after the daily pounding it had to withstand

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from the district's collective feet.

A sudden burst of firing—its irregular spacing, less than a mile distant, suggesting an affair between contestants who could not shoot straight—presently reminded Devlin once more that beyond the real trees and flower beds lay an unpleasantly real world.

Beside him the Brother sighed and said, "I realize that I am rushing things, Doctor—coming much too quickly to the point. But there isn't much time. I hope you will forgive me and make allowances."

Devlin made a wordless noise, a guarded grunt which, he hoped, would bind him to nothing.

The Brother went on soberly, "I won't insult your intelligence by asking if you are happy with things as they are. But just how unhappy are you?"

"With things as they are?"

Brother Howard nodded. "As detailed a list as you can manage."

Devlin began to laugh, then stopped, his amusement changing suddenly to irritation. He said, "There is a long list of things I'm unhappy about. Arming so-called responsible citizens before they have reached maturity, much less achieved a sense of responsibility, is wrong. And I don't like the way the majority of these citizens treat the sheep—or the way the Maxers overreact if someone so much as sneezes without using a tissue—or the way city security can't seem to be able to keep the peace without waging total

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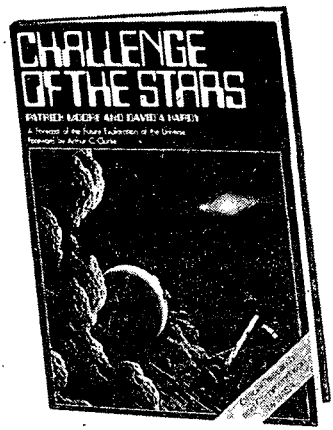

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war on all and sundry. Of course, I'm not being quite fair to them—it's pretty obvious that they can't trust anyone who is not another security man. But they don't bother to hide that fact." He went on angrily. "Oh, I know that the citizens and Maxers started out with the highest possible motives. We were on the verge of anarchy and it was thought that sober and responsible citizens bearing arms would be able to curb the worst excesses—the wholesale muggings and murders and bombings. And the idea of maximum rather than minimum response to violent crime—that worked for a while, too. But then both citizens and Maxers began looking for wrongs to right and when they could no longer find even a minor wrong they—"

Devlin broke off, took a deep breath and continued, "I don't like the mass processing of patients and the complete depersonalization in present-day hospitals—or the increasing loneliness that overcrowding brings. You have only to walk through a crowded rec hall at night to know what I mean. Curative treatment for these social ills should have started many generations ago," he said bitterly. "I realize that nothing can be done at this late date, but I don't have to like the situation. In my profession one is conditioned to dislike illness, I suppose—and I especially do not like the illness and the rot afflicting society these days. The sickness goes through to the core and from the top to the bottom. There is no secure place, nothing to hold on to, nobody in authority who is fully trustworthy, nowhere to go that is any better. I'm generalizing, of course—there are bound to be some individuals or groups trying to improve matters, but they are the exceptions that prove the rule and they will eventually go soft and rotten like the rest of us. Their psychiatrists or friends will explain the folly of remaining firm while everyone else is going loose. They will be given, or elect to take, one of the personality change series that will chemically tailor their minds to fit happily into present-day society. Sheep into citizens or vice versa with a couple of color-coded pills!"

Brother Howard nodded and opened his mouth to speak, but Devlin went on savagely. "And now you will say something ponderous about confession being good for the soul, then lead into a lecture designed to show me the error of my ways—"

"Like hell I will—" began the Brother, then stopped to look past him at the girl who was hurrying toward them.

DEVLIN had not realized that they had walked around to the main entrance again. He introduced Patricia to Howard, then added: "We were talking about—"

"No need to explain," she said, frowning. "I could hear you from the gate. It sounded like the beginning of a hand-to-hand affair."

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"Nothing like that," Howard said reassuringly. "We were simply continuing a discussion begun some time ago and, much as I would like to finish it, I realize that I am intruding—"

He was intruding, but a full minute passed and he was still standing there, looking from Devlin to the girl and pleading silently for them to deny it. Something was bothering him and Devlin's curiosity was beginning to outweigh his irritation. He looked enquiringly at the girl.

"There is no need to cut short your discussion on my account," she said.

The Brother's sigh was clearly audible. He said, "Thank you. What I was really asking a few minutes ago, Doctor, was whether you were unhappy enough with the situation here and now to want to escape from it. I can offer you, perhaps both of you, a chance at something much better—"

"Another thing I dislike about present-day society," Devlin broke in harshly, "is the way people can have their minds changed by subtle argument or by people offering new methods of escape through drugs, hallucinations or heightened metaphysical experience. I do not think, Brother, that you will ever convince us that we would be better off dead and in heaven."

Brother Howard was waving his hands in agitation. They were the same hands that had sent an armed citizen to a hospital, but Devlin was too angry to care. He did not want to embark on an interminable argument about the after-life, comparative religion or any other metaphysical means of life-support. All he wanted was to be alone with Patricia Morley and talk—and hope that something would develop despite the pressures of the sick society in which they lived. He would dearly love to escape from it—but not by using the Brother's method. Taking Patricia's arm, he began to turn away.

"Wait, Doctor, please," the Brother said. "When we spoke last you accused me of wanting to convert you and I denied it. I still do. But I have been thinking about our meeting and . . . Well, I've had a chance to sleep on it and I've come to a decision. The reason I wanted so badly to speak to you again was because of your ripe fruit analogy. You said that the human race was at the peak of its scientific and cultural abilities, but that we were too rich, too ripe and were about ready to burst. You suggested what might happen if someone took a firm grip on that fruit and squeezed hard?"

"You would be left with a nastiness," said Devlin.

"And the pit would shoot out," added the girl.

"Exactly," said the Brother.

They stood for several minutes in silence broken only by the sound of bees and some distant shooting. When Brother Howard finally spoke he sounded awkward, diffident, but sincere.

He said, "I've already told you

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that I am not seeking converts, but recruits. I am recruiting colonists and crew for a starship."

X

DEVLIN had expected to see a ten-thousand-person block wrapped in a security blanket maybe three guards deep and packed with computers, simulators, medics, instructors and all kinds of technical and nontechnical support staff, as well as hundreds of other candidates under training. Instead he saw a small, three-story building with boarded-up windows and pitted walls symptomatic of a structure that had suffered a near miss. There were a lot of city security men nearby, but they were grouped around a dozen or more armored vehicles parked in the space where an adjoining building had been.

The security guard at the entrance paid little attention to Brother Howard, Devlin or the girl, but this was because his eyes were on the telltales of one of the most sophisticated weapon sniffers that Devlin had ever seen. And when the Brother ushered them into a ground-floor office—the building did not have an elevator and the room's sole occupant was obviously incapable of climbing stairs—the old man sitting behind the impressive desk computer showed only the most casual interest.

There was too much skin and not enough underlying tissue on his shrunken skull for any facial expression to show, Devlin thought. A face like that belonged in a terminal geriatrics ward, but the depth and power of the voice were surprising.

"My name is Martin," he said. "Sit down, please, and relax while Brother Howard wires you up. Don't talk until he is finished and don't ask questions until I have finished asking mine. That way you will probably find that you need not have asked them in the first place."

Silently and with the gentle but impersonal touch of an experienced medic, Brother Howard fitted Devlin and Patricia with psych collars and positioned the leads and sensors as accurately as if their skulls had been shaved and marked. Devlin knew that he should object because the collars were diagnostic tools that could be dangerous in the hands of someone who was not a high-level psychiatrist, and he had no idea of the incredibly old man's professional qualifications, if any. But he was too intrigued—or perhaps too much of a moral coward—to argue.

He cleared his throat and said, "You're full of surprises, Brother."

Brother Howard smiled, gave both collars a final check and sat close enough to Martin for Devlin to be able to look at both men without moving.

He swallowed nervously and said, "I'm not sure that I believe everything I've been told. But if I did believe it... Well, I'm no superman."

The old man nodded and said,

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"For this particular exercise I am completely disinterested in supermen or superwomen. Instead I am seeking standards that may be too high or too low for you to reach, because whether you pass them or fail to reach them, you fail. And now that my words have made you sufficiently worried and confused for your mental reactions to be as revealing as possible to this oversophisticated bundle of scrap—"

"Excuse me," said Devlin, "but isn't it wrong to reveal so much about the purpose and mechanics of a test to the subject?"

"Maybe," said the old man. "I'm a stupid psychologist."

"But I wouldn't bet on it," said the Brother dryly.

"Very well," Martin went on. "We know that you are not a superman. What else are you not? Have you ever been a citizen? And don't shake your head or you'll loosen a sensor. Use your tongue."

"Sorry. No."

"Was the reason cowardice, irresponsibility or a sense of vocation?"

DEVLIN took a deep breath and tried to control his irritation, even though he knew that the sensors were picking it up and telling the old man all about it. He said, "In order—probably yes—definitely no—and I was ordered to take up my profession."

"Go on."

"I was afraid of wearing the belt of a responsible citizen," Devlin replied. "I think that too many citizens are strutting braggarts and completely irresponsible. I became a doctor because, in my father's opinion, I was unsuited for any other job."

The old man nodded, but there were too many lines on his face for his expression to be readable. He said, "Your father isn't being assessed, Doctor, but his opinion of you might have some relevance."

"It has a lot of relevance," said Devlin, "because I did as I was told. According to my father, however, I was too impressionable, too soft, too prone to fall over my own feet to have any real coordination between eye and muscle. He did say that I showed intelligence at times. He thought that I might be stampeded into wearing a belt by some real or fancied insult. But if I did, then my first opponent would almost certainly win because, even if I didn't refuse to shoot because it might hurt him, I might not be able to draw my weapon without dropping it or shooting myself in the thigh with it. He was also fond of saying that society was going to hell and that nothing was sure or permanent but death and taxes. There was nothing I could do about the taxes, he told me, but the more widespread became the armed protests and honor killings, the greater would be the need for doctors."

"Was he a citizen?"

"No."

"I see," said Martin. "But we'll leave your father for now. Have you

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ever been a Maxer? Ever been in a sheep fight with illegal weapons or hands? No? Well, how about a heated argument? You're beginning to sound like a supersheep, Doctor, and that also is an abnormal condition that could—"

"Try not to feel angry and insulted, Doctor," Brother Howard broke in, his eyes moving over the desk displays. "My colleague is very short of time, which often means that he is also short of tact and good manners. Forgive him—and remember that the qualities and characteristics for which we are testing are not those you yourself might consider important or admirable. The meek are going to inherit the Earth, Doctor. Not this Earth—but they *will* inherit."

"I shall try to remember that," said Devlin skeptically. Then, to the old man: "Yes, I have had arguments with other sheep, too many for me to remember with accuracy, but no fights. I take my turn on block security duties, but have never had to shoot anyone. I believe that the best form of defense is defense. I was never a Maxer for the same reason."

"I see," said the resonant voice coming from Martin's pendulous, bloodhound's face. "Have you ever been friendly with or related to anyone who subscribed to the philosophy of maximum response?"

"We're back to my father again," said Devlin.

"How long was he a practicing Maxer?"

"Seven, maybe eight minutes. Just after they had cut my mother for saying that they were of bunch of—"

"So he was provoked. Casualties?"

"Three dead, two requiring hospitalization and one with psychic damage that caused him to resign his citizen status."

"So he killed three, injured two and scared the sixth one into becoming a sheep," said the psychiatrist. "What age were you when he told you about it and how often did he describe the incident?"

"I was ten," said Devlin. "I found out about the incident much later. He didn't speak of it at all—except once, maybe, when he told me that the most dangerous thing in the world was a coward driven to desperation."

"You felt proud of him?"

"Yes. No. I'm not sure."

TURNING to the girl, Martin said, "My apologies for taking on the Doctor before you, Miss Morley. It is just that I was expecting to interrogate your friend and you were not expected—"

"What about my mother?" asked Devlin. "Isn't her influence important?"

"It is," said Brother Howard, "but since she died sixteen years ago as a result of the Maxer incident just described, when you were only ten, her influence isn't recent. Besides, her death meant that full psychomedical records became available to us, so that her effect on you could be

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estimated with a fair degree of accuracy. Your father, on the other hand, did not break any laws, never caught any serious diseases, managed to avoid major injuries and is still alive somewhere."

"But this means that you expected me here!" Devlin burst out. "If you had already studied my—"

"Thoroughly," said the Brother, nodding toward the psychologist. "Miss Morley's being with you was a bonus. We have called up her records and she, too, is colonist material. But please be quiet, Doctor. My colleague is busy."

Devlin nodded carefully so as not to dislodge the sensors, his mind suddenly at least as busy as that of the psychologist's—so much so that he missed Patricia's initial answers. For if the material in Central Records had been made available to these people, then they had the support of Population Provisioning and Control, which in turn had a great deal of influence with Security and Health. In all probability then, the squadron of security armor outside was not simply on standby in case a disturbance might break out in the area—it was there to protect this building.

It made the Brother's starship story much easier to believe.

He wondered about Howard's reference to Martin as his colleague. Was the Brother really a Brother? By the time Devlin had decided that he was—his conversation and reaction after the Bennet boy's death had been too good to be false—Martin had finished with the girl.

"Bearing in mind that we are not looking for superhuman physical or mental abilities," he said, his eyes moving slowly from the girl to Devlin and back, "I consider both of you suitable for further indoctrination—as crew members rather than colonists. The major factors we have considered in reaching this decision are that both of you are intensely dissatisfied with your present life styles and would like to escape them—and neither of your personalities is basically violent. More simply, you would like to change things but are unwilling to hurt people to do it.

"The decision regarding your crew status was a close one," he went on, his voice seeming to vibrate inside their very bones, "because you, Miss Morley, gave indications of future instability should you be unable to find a permanent male dependent. You, Doctor, although Brother Howard had already decided on your suitability as a colonist, are a drifter dissatisfied with everything—including yourself. You know that some kind of change is necessary, but you are too lacking in self-confidence to make any decision that involves only yourself. If you two had not been complementary personalities and potential mates the crew rating decision could well have gone against you. My congratulations."

Devlin could feel the girl's eyes on him. He opened his mouth to speak,

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but the psychologist went on, "We cannot fit you into a training schedule for another two weeks, however, so Brother Howard will spend as much of the intervening time as possible with you, answering your questions and outlining project philosophy. To begin with, this will be done in your own living block. You can arrange a cover among yourselves–Miss Morley requires spiritual as well as medical comfort, perhaps, and needs frequent visits of a reverend during rec periods. You have quiet-talkers–hush-mikes–I would presume?"

"Yes, but–" began Devlin.

"I'll try not to intrude," said Brother Howard.

"–we scarcely know each other," Devlin ended.

There was a moment's silence. Then Martin said firmly, "You are introducing an unnecessary complication, Doctor. I can solve it–in fact, I already have–but it might be better for both of you if I let Brother Howard explain it. Unlike me, he still has a little romance left in his soul."

BUT the answer was delayed. When they left Martin's office Brother Howard signaled for silence and motioned them against the corridor wall. Eight white coffinlike containers, wheeled for easy movement, were being pushed toward the rear of the building where Devlin could see a large riot ambulance backed against a loading ramp. The men pushing the containers, which were beaded with moisture and radiating intense cold, were silent.

"So that's what you do with the unsuccessful candidates," said the girl, shivering.

"They are the successful ones, Miss Morley," said Howard, "in suspended animation for holding in orbit. In that condition they are not a drain on the ship's consumables. It also means that we can train them in small numbers over a considerable period and store them until we have a full complement–and there is less risk of a security leak..."

He talked about the training program and nothing else during the drive back to Devlin's block. Perhaps, Devlin thought, Martin had handed the Brother a chore highly embarrassing for a man of God who believed in free will instead of endocrinology. Or maybe the Brother's enthusiasm for the project was as honest as it sounded. But he had to break off talking as a small explosion rocked the car and the armored shutters dropped into place.

The period of temporary sanity had come to an end.

Devlin reduced speed and drove on his periscope for a few hundred yards until a larger and softer explosion showered the car with debris and jerked it to a halt. Through the dust that had settled on his outer lenses Devlin could see that the front of a building had fallen into the street and that traffic was blocked in both directions. From somewhere farther ahead came the sudden *whump*-crash

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of a rocket opening up a vehicle, accompanied by sounds of shouting and screaming, but his armor muffled the noise so that he could not tell whether the people were protesting or in pain. He cut the engine, sat back and loosened his safety harness.

"We could be here for some time," he said. "There are sandwiches on the shelf beside the instrument cabinet."

"A lot of them," said the Brother appreciatively. "But of course, Doctor—you were planning a picnic in the park, off an imitation log table under a real tree. Very romantic."

"And practical," said Devlin, "considering the mob around the park food dispensers. Which reminds me—you were supposed to give us a romantic answer to a practical question back there."

HOWARD smiled and said, "I was hoping that you would not insist on an answer—that you would let things happen naturally. Two people whose psych profiles are as complementary as yours would have to spend only a short time in each other's company to become inseparable. But informing most people of this fact tends to make them think that their free will is being taken away, that they have no choice in the matter. They then tend to react in an abnormal fashion toward each other out of sheer contrariness. To prove that they still have a choice they sometimes insist on making the wrong choice."

A smooth talker, this Brother, Devlin thought. But the truth was that he had already made his choice. Had Patricia made hers?

"Pairing is forbidden until after the landing in any case." Brother Howard went on, "so you will have plenty of time to consider. We could adjust your personalities so that you would become a latter-day Romeo and Juliet. But personality engineering is one of the things you will be escaping from—"

He broke off as a long burst of gunfire made speech impossible. During a short lull that followed he tried again, then gave up. Devlin looked from the Brother to the girl, while she gazed steadily at him. Then the firing rose to a crescendo, became interspersed with the small, soft explosions of gas grenades, the sounds of screaming, jeering and the tinkle and hiss of thrown firebombs. The girl reached forward and gripped his hand.

It was not a panic reaction. Her hand was cool and steady, her grip just tight enough to let him know that she did not want to let go. The car's filters, which were never one hundred per cent effective, were leaking a sharp and not unpleasant smell composed of smoke and barbecue odor. Quite suddenly the world became quiet—except for the screaming.

In the distance presently arose the sound of sirens and the intermittent whining of the heavy Sanator ambulances as they used their jet-lift to

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jump intervening traffic. Brother Howard reached toward the hatch handle.

"No," said Devlin harshly. "We can't give medical assistance to compare with the heavies—and they'll be too busy to let you give any other kind. Oh, they'll give you a white coat if you insist, but not the body armor to go under it—and they'll be very annoyed if a surviving protester makes another casualty out of you. Believe me, I know." More quietly he went on: "But they are very well equipped and expert at their job, Brother. And good at separating the potential survivors from the others on whom hospitalization would be wasted. So just be patient until the ambulances and the law have gone—then there will be plenty of work for you to do. After all, it is the unsalvageable ones who really need your help."

The Brother nodded and loosened his grip on the handle while the girl suddenly tightened hers on Devlin's hand.

"This," she said, "is a terrible way to live."

The hours that followed were not pleasant to remember because they were spent helping the Brother to comfort the still-living dying. But later, when they were together in the block rec hall and talking about the starship via miniature hush-mikes and earplugs, they had soon forgotten the incident.

It had been very easy to forget just then because the process that was supposed to happen naturally was well advanced and Devlin for one had no control over it. And it had been a happy and interesting day apart from the riot.

COOLDOWN IN FIVE MINUTES.

Devlin shivered and thought about the enormous, complex ship and its interminable voyage, about the colonists, with hours of life sandwiched between decades of frigid sleep and about his suspicions that something had been done—or was being done—to their cold-sleeping minds. His memories and dreams were much too vivid and complete, suggesting that they were being artificially stimulated. Were he, Patricia and the colonists where they thought they were—or was this simply an advanced simulation and final weeding-out process for the candidates?

Of one thing he was sure. This, too, was a terrible way to live.

XI

The most persistent memories of his early life were of confinement and restriction, both in the clothing he had to wear and the limitations placed upon his movements inside and around the castle. As he grew older he came to realize that the stairs had been too large and steep for his child's legs and undeveloped sense of balance, and, as he grew older still, he learned about the faceless people who might kill him if he strayed alone beyond the protec-

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tion of the outer walls.

He never did fully understand why he had to be continually smothered in satin and frills. Even in bed he had to wear more clothes than most of his people wore in mid-winter, including a cap with ear-muffs that was like a jeweled cloth crown.

A laughing, leather-kilted and strong-smelling giant called Hawn told him that all this was because he was more important than everyone else and had to be protected against sickness, damp and the attacks of enemies. Later, when the giant Hawn had shrunk to normal size, he said much the same things, but usually tried to change the subject by hitting or prodding him with a wooden sword—but never painfully. And when he was full grown and Hawn had become a wiry little man with graying hair who laughed but seldom, such questions were left for his advisors to answer and the swords used to change the subject were no longer of wood.

But age, or perhaps an unwilling pupil, had made Hawn shrewish of late.

"Slashing and cutting is a waste of effort, armed as you are, Sire. To slash with a light sword you must move your shield clear of your body, leaving it unprotected. Move it aside only enough to aim and stab and never block a blow directly—a strong thrust from your enemy will go through your shield unless it is very thick and heavy, and in that case it will tire you and slow you down. A light shield used to deflect, not block, an attack and with a sharp edge which enables it to serve as an additional weapon is best, Sire—provided you do not become angry and begin waving your sword around your head as most of the others will be doing."

"Yes," he said, whirling the sword around his head and cutting another notch in the wood of the practice stump.

"Carving pieces off your enemy may give you pleasure, Sire," said Hawn with irritating patience, "but an aimed thrust in the vitals is instantly disabling and fatal. There is no need to skewer your enemy—a finger's length in any vital area, followed by a twist before withdrawal, will do it. You should practice at every opportunity, Sire, until it becomes habit."

"Very well, Hawn," he said coldly. "I shall keep a cool head and kill an enemy with every blow, but I think you are a calculating and cruel man."

"No, Sire," said his master-at-arms. "A wounded enemy is a dangerous enemy. If he is also a thoughtful enemy he will know that his wound, even though it may not be disabling, will go bad and kill him slowly with fever and vomiting and endless thirst. You have not yet seen a battle, Sire, or

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its long aftermath when the wounded are brought home to their friends who try to bind and poultice them and try to make them live, to no avail."

"Enough!" he said angrily. "I shall try, then, to be cool and kind in battle. Now guard yourself."

For several minutes he cut and thrust at his master-at-arms while the old man parried or ducked every single blow. Then gradually the cool, calculated methods of attack which Hawn had tried to instill came back to him and he saw his aged opponent becoming more and more worried. But by then his anger had faded and he was no longer trying to kill the irritating old man.

When he told his mother about the incident that evening and of how Hawn had complimented him on the excellence of his attack, she was far from pleased. For the first time she told him how his father had died—not as it was recorded in the library, of wounds received in a glorious and heroic battle, but from a mere scratch in his arm made by the dirty stave of a dying foot soldier. The scratch had gone bad and, after many weeks, so had the arm. It was stinking and corrupt, and dead before his father was.

Unlike his mother and Hawn, his advisers were old and wise and never irritating. They gave quiet and thoughtful approval to his idea—or had it, perhaps, been their idea?—that a man should not run like a child to his mother for advice and that he should think of fathering an heir to his kingdom. He overheard a highly insulting remark, which he was probably meant to overhear, about his peace-loving grandfather's having been a great and glorious queen—and everyone had laughed just an instant after he did.

But later they became serious and talked about the noble ladies he might choose to marry and the political and territorial advantages each possible candidate would bring him. The discussions were all cold and calculating and much like one of Hawn's lessons. But he did not mind because they also spoke, for the first time, of the desirability of bringing royal concubines into residence while a suitable queen was found for him.

Except for Hawn's irritating bullying and the equally irritating acquiescence of his advisers, he was happy during the eight years that followed. His domain was free of disaffection, plague, and war.

The war started because of a chance remark by a traveler to one of his advisers, a remark he was not supposed to overhear. The advisers had boasted that from the highest tower in the palace their king could not see to

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the borders of his lands, and the visitor had replied that this was so only when rain was falling to the eastward.

Even on the clearest days the hill, which was just inside the border of the adjoining kingdom, was only a tiny swelling on the eastern horizon, misty with distance and visible only from the highest tower. It was densely wooded and uninhabitated and unlikely to be considered of value by the monarch to whom it belonged, but this had not been the first visitor to joke about it. Of itself the thing was unimportant, a tiny pimple on the face of his fair land—but even a small pimple could itch.

When he mentioned it in council, Hawn laughed uproariously, then said, "The simple solution, Sire, would be to plant a grove of trees between the palace and the offending object—"

Hawn broke off, silenced by the look on his face. Realizing that their king was not jesting and that he knew exactly what he wanted, the council members began deliberating on the best way of getting the hill for him.

Very tactfully it was suggested to him that he could not simply take the small and worthless piece of his neighbor's territory without very good reasons for doing so—reasons that would add to rather than diminish the respect in which he was held. The constant reminders about the presence of the hill were embarrassing, of course, but his advisors suggested that perhaps at the back of his mind he might also have realized that it overlooked a large area of his kingdom and, should his neighbor intend taking up arms against him—and there was no evidence to the contrary—the hill would confer a military advantage. In fact, it was suddenly considered imperative that a small, well-armed but secret force should be deployed on the border as close to the hill as possible, to guard against the possibility of an observation post's being set up there. Preparations would probably take half a year, but this would allow time to recruit and train men and for the people to come to feel sufficiently threatened to support a war.

They saw his baffled expression and once again it was Hawn who spoke. He said, "The men will be equipped with plain shields and armor and will carry no identifying standards. We will see that they are undersupplied and that they will find it necessary to live off the land. This means that much livestock in the area will disappear, usually at night, and it will be easier to rob our own people than the others across the border—although they, too, will find sheep and chickens missing from time to time. Soon the other king will send some of his soldiers to investigate these occurrences,

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but before that there will be complaints and much anger from our own people who have suffered. Cause and effect will become confused in their minds, which are not very bright, Sire, and they will appeal to you for protection. The appeal will have general support and when the other king's men clash with ours—"

"These nocturnal raids—" he said sharply. "Will any of my people be hurt?"

"No, Sire," said Hawn. "Unless they think more of their chickens than they do of their miserable lives."

During the months that followed he had second thoughts about the war he had engineered and which was rapidly becoming inevitable. When the first news of the growing trouble on his border reached the capital he tried to give orders that would recall his soldiers and allow the situation to cool down—but the effort dwindled to a small inner voice that never won the cooperation of his lips and tongue. When word reached him that his anonymous men were taking more than chickens and sheep—that they were taking wives and daughters as well and killing anyone who objected—he grew angry with himself. He also grew publicly angry and rode among his people, who more and more often hailed him as their protector. Sometimes their cheering managed to drown the quiet, nagging voice of his conscience—of both his consciences.

He was dimly aware of a strange mental ghost called Devlin that gibbered unheeded when his real thoughts and decisions were leading him into danger. It kept reminding him that the brachiapod, too, had represented a deadly danger and his trilobite had crawled within reach of its tentacles. Then there had been the incident with the young allosaurus, the insane jealousy of the tree-dwelling presimians, the time he had been wounded by a big cat and had plastered the bloody tear with filthy, matted grass instead of washing it in the sea and allowing the sun's UV to heal the wound. But the ghost's warnings were like a viewer's efforts to influence the actors on a television screen—whatever that was.

The Devlin ghost was inside him, thinking strange out-of-context thoughts and giving unheard advice, but it was not really a part of the spoiled, forty-year-old boy who rode at the head of his small army against a self-manufactured threat.

Eastward his domain extended to the river that passed within a mile of the lower slopes of the offending hill. The river was only a few feet deep, but the banks were lined with prickly bushes. One of them must have scratched

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the belly of Hawn's horse as it was climbing the bank, because the animal reared sudenly, throwing its rider and then dragging him by one stirrup as it floundered and splashed downstream. Two of Hawn's men gave chase and managed to head the horse up and on to the bank, but by that time the master-at-arms had drowned.

Looking at the slack, wet face and the heavy armor Hawn had taken to wearing as his aging joints had stiffened, the king felt anger at the man's ridiculous and ignoble death. The laughing giant of his childhood should not have ended his life like this.

"Leave him until after the battle," he said sternly, then more softly for the benefit of his soldiers, "If you remember his teaching when you meet the enemy, he still lives."

They reformed and moved toward the base of the hill where the other army was already gathering.

All soldiers in his service had been trained—taking into account the differences in personal armor and weapons—in the same way as their monarch. Even the pikemen, who did not matter very much to either side in a battle, had been instructed in Hawn's methods of cool-headed and calculated attack and personal defense. The long and unhandy pikes—which until then had been little more than sharpened branches—had been shortened and thickened and a cross-piece had been added near the base so that they had the handling characteristics of both a long sword and a short spear. In battle a pike-man was supposed to knock aside his opponent's lighter and longer pike with his short heavy one or catch the thrust in his crosspiece and steer it past his body, then close and dispatch his enemy before the other could shorten his grip for a second blow.

There were hundreds of bruised ribs among his men to prove that, in training at least, the method was effective.

There was no sign of cooking fires from the other side, so obviously their prince wanted to settle the affair before the midday meal. The prince, who was leading an army slightly more numerous than his own, had taken the field because his father was too old and heavy to mount a horse safely. The fact that losing this battle would mean his yielding to little more than a boy—and a very boastful boy, at that—had weighed heavily in his decision to adopt Hawn's new and in some ways not quite honorable ideas.

In leisurely and dignified fashion he deployed his forces—pikemen to the fore, mounted soldiers who were the personal troops of two of his most trusted lords protecting his flanks, and the rest of the nobles, their men

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and his own guard surrounding him. When his formation was complete the two armies would face each other within hailing distance until trumpeters on both sides announced their readiness to fight.

After that they would advance toward each other and fight until one side or the other decided that an unacceptable number of casualties had been sustained and yield the field to the victor. A parley to achieve a settlement of land or gold would follow and then everyone would go home. Most of the fighting would be between pike-men and foot soldiers, but a few of his nobles would be able to exercise within the safety of their resplendent armor while he and his guard stood decoratively in the middle of his army until the issue had been decided.

But his formation was still incomplete when trumpets blared on the other side. Their nobles, personal troops and the prince's guard, the prince himself at their center, began trotting quickly along the rear of their own pike lines, pennants fluttering on their lances and plumes undulating like flying caterpillars. It was not until they had rounded the flank of their pike-men and lowered their lances to charge that he realized that Hawn had not been the only radical military thinker.

The young prince was hot-headed and anxious to prove himself fit to lead and rule, but he was doing a strange and dishonorable thing.

Instead of trying merely to win a battle the prince intended to kill the opposing king.

The king's pike-men had not been expected to withstand a charge led by heavily armored horsemen and they did not do so. But they did remember Hawn's training and some of them managed to fend off the lances and stab at the horses, or jump aside at the last moment and stick their pikes between the forelegs, bringing the horse and its rider to the ground, where a dazed and heavily encumbered man was easy to kill.

The king saw the center of his pike line collapse, saw the opposing lines of pike-men begin to walk forward, saw his flankers galloping from each side along the narrowing gap between the opposing lines with the obvious intention of following the enemy horsemen through the gap they had made and taking them in the rear. Then he, whose royal person was supposed to be inviolate, was fighting for his life like the lowliest pike-man.

One of the opposing nobles leading the attack was charging down on him, lance leveled and visor open for better seeing. He tried desperately to move aside, but was hampered by the press of his guards. Suddenly there was a

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horseman between his attacker and himself—his guard captain, judging by the helmet crest—who screamed shrilly as a bloody lance head sprouted from the small of his back. The captain rolled off his horse, taking the enemy's lance with him. But the other was already drawing his heavy sword to aim a two-handed swing.

The king slashed in panic at the man's helmet, saw the plume begin to drift groundward, then managed to get his shield up in time to block the swing. The shock nearly paralyzed his arm and he was left with a splintered shield dangling loosely from its arm straps and his enemy was raising his sword high above his head for the final killing blow. He remembered Hawn saying that a shield should be used to deflect, not block a heavy weapon and that an angry or excited enemy exposed himself during an attack.

He spurred forward, took aim at one of the dimly seen eyes below the opponent's open visor and thrust to full extension. His sword met with very little resistance and he thought that he had not been able to reach far enough, but he twisted it before withdrawing as Hawn had advised. His enemy's weapon tumbled into the long grass and the man followed it, beating frantically at the sides of his helmet with his mailed fists. Then another lance was reaching toward him across the riderless horse, so that he could not get to close quarters with the new threat. He dug his spurs into his mount and pulled back hard on the reins—another Hawn-taught trick—so that it reared and took the thrust meant for him. He had already disengaged his feet from the stirrups by the time the horse fell squealing and threshing to the ground, taking the broken lance with it. He jumped clear and ran around the riderless horse in time to see his opponent reaching for the sword in a back scabbard.

The two-handed reach left a three-inch unarmored gap at the enemy's armpits. The king paused an instant to take aim, make a thrust, twist and withdrawal. As the man fell he snatched the other's shield and for a few minutes had to fight with one of his own Hawn-trained guards who took him for an enemy. The look on the man's face when he discovered whom he was fighting was so ludicrous that the king laughed out loud—a great, bellowing guffaw that sounded terribly out of place in the middle of a battle.

This was the stuff of which legends were made, for it was clearly evident that his enemies were intent on killing him as well as winning the battle—a most dishonorable intention. He was matching their dishonor with his own cold and calculating fighting methods.

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As the attacks on his person became fewer he took to helping his guards, stepping forward to make a flanking attack when a man or group was hard-pressed, relieving his men with the deadly, calculated thrusts which left dead or rapidly dying enemies in his wake. He did not have to do this very often, but later there was hardly a man who did not boast proudly that the king, personally, had saved his life during the battle. Later the scribes elaborated on these stories and added details of a fight in which the king had slain the opposing prince in single combat.

There were many suits of beautifully decorated and costly armor tumbled about in the long, trampled grass and leaking blood—but he had not been responsible for all of them. Anyone, perhaps even an overzealous pikeman, could have slain the prince on that confused and bloody morning. It was a strange battle with only the enemy making the noise. Only they did the charging, the shouting of battle cries and most of the dying. If the fighting were not stopped soon there would not be enough of the enemy left to bury his own dead.

"Hold—enough of this slaughter!" he called suddenly and pointed with his sword toward a group of opposing nobles and their remaining personal soldiers who were fighting hopelessly a few yards away. "Enough! I call on you to yield with honor!"

On his return to the palace that evening he was hailed as the greatest warrior of all time and the festivities in celebration of his victory went on for three days. He had been called his people's protector and now they added The Merciful to his name because he had not killed each and every one of his enemies. A little later they added The Peacemaker because of the alliance he negotiated between his kingdom and its recent enemy.

With the prince slain and his father, the old king, ailing and ruling with difficulty a country that was poor and ripe for revolt, the victorious king helped his erstwhile enemy with gold and grain in return for an agreement that their kingdoms would eventually merge with his marriage to the enemy princess, an exquisitely beautiful child of nine, when she arrived at a suitable age. This would probably mean that he would have to give up his concubines for a while at least, but in ten years' time he would be much older and that might not be such a great hardship. There was one problem, however, and that was that his young queen-to-be did not like him.

Her father explained that she had dearly loved her older brother, the prince, who had taken her about on his horse and told her tales of great and glorious

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deeds of valor. In a way it had been like the early relationship between Hawn and himself, except that she had been an impressionable girl-child and the prince had not lived long enough to become boastful and irritating to her maturing mind. But her father assured him that childish memories and feelings were short-lived and that when the time came she would be honored to wed such a great king.

And he was a great and well-loved king to his people. Apart from that single morning's battle there were no more wars in his reign. Adjoining kingdoms, worried by the fighting prowess of his small but well-trained army, had to be reassured. Threats of combined aggression had to be countered by various devious methods—none of which were honorable and many of which were utterly despicable. He had to be constantly on guard against the devious threats of groups within his own court. But his kingdom prospered and his reputation for honesty and mercy and nobility grew, it seemed, in direct proportion to the depths of dishonor to which he sank.

As the years went by the costly robes he used to find so irksome gave girth and stature to his wasting body and when the time came for his wedding he had begun to feel uncertain in ways he would never have believed possible.

He was beginning to feel old.

But he was not yet old enough to be unaffected by the glory and pageantry of the wedding or by the obeisance of the nobles of two powerful kingdoms which were now one. And he would have had to be senile indeed not to be affected by the sight of his young queen. She had been a beautiful child and he had discounted as diplomatic exaggeration the stories of her increasing beauty as she approached womanhood. But when he saw her on the eve of their wedding he knew that the couriers had been stupid, tongue-tied, insensitive and blind creatures whose rhapsodies had not done her justice.

During the three years following the wedding she was the most loved person in the kingdom—the king was respected and feared as well as being loved. She was incredibly lovely, regal, gracious and faithful—and as cold toward him in the privacy of their chambers as the ice that covered the northern wastes. During those three years she gave him two strong and healthy sons and a great deal of irritation.

He could not express his anger in public, or even admit to its existence within the palace, because his queen was too much loved for him to make her appear anything but perfect. The trouble was that she behaved perfectly

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toward everyone but him—her disposition was pleasant toward the servants and guards—she laughed a lot and her gaiety was unforced and to nobles and serfs alike she showed consideration. But the king she did not love and she did not want to be his confidant or companion either.

Several times he tried to explain about the bloody confusion of the battle in which her brother had died, but on each occasion it was obvious that the impression left by the scribes who had recorded the event, and who had not even been there, was much deeper and longer lasting than the words of her king.

Sheer loneliness and the need for companionship if not understanding made him consider recalling one of his concubines, but that would have made him look ridiculous—not because the practice was frowned on, but because no woman in the kingdom was more beautiful and desirable than his own queen. So he returned to the lonely life of being a feared and respected and powerful monarch and took pleasure in only three things.

Two of them were his sons, who were growing taller and stronger and more handsome with each passing day. His third pleasure came from playing the devious, dangerous and dishonorable game that would, if he won, ensure the continued existence and future long life of the first two pleasures. For the life of a king, even one who was loved and generally referred to as Great, was an uncertain thing.

He could not know for certain who had been responsible, but for the few seconds in which he was able to think he thought sadly that this act would cause grave instability in the kingdom and that his queen must have loved her big brother very much. Then the knife that had been driven upward into his back at waist level was given an expert twist as it was withdrawn and, briefly, he suffered more pain than he would have believed possible.

GOOD MORNING DEVLIN.

SHIP STATUS SIX HUNDRED AND THREE YEARS INTO MISSION. ALL SYSTEMS AND/OR BACKUP SYSTEMS FUNCTIONING. SHIP PERSONNEL CURRENTLY AWAKE—ONE. IDENTITY JOHN DEVLIN.

XII

SIX hundred years! All systems or backup systems... That meant there had been system failures since his last awakening. But how many—and how serious?

REASON FOR AWAKENING. TO CHECK FUNCTIONING OF DEVLIN MUSCLE SYSTEMS, CIRCULATION, SPEECH ORGAN AND MEMORY. PERIOD OF AWAKENING FOUR HOURS.

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CARRY OUT INSTRUCTIONS. SPEAK, EXERCISE AND REMEMBER.

"Mary," said Devlin furiously, "had a little lamb." He began the careful movements of his back, arms and legs which would allow him to get out of the casket. The process of remembering was involuntary and the memories were painfully sharp.

Devlin gritted his teeth and moaned at the remembered pain of that knife thrust, at the burning agony that was like a fire inside his cold and shocked body. He tried to push away the memory, to escape the king's life as well as his death and return to his own life. Instead he found himself watching that same king in action from a distance of a few dozen yards, and holding the broken pike that had transfixed him. He was moaning and holding it as steady as his fading strength would allow because if it moved the pain became even worse.

He fought off that dream, too, and suddenly he was babbling at the streaming roof of his cave while a fever raged through his hairy body—then he was a dying mountain of flesh and bone somewhere in the Jurassic period and a near-mindless crawler on a warm seabed, eating and being eaten...

"Stop it!" he shouted. "You're driving me insane—"

ADDITIONAL TO INSTRUCTION REMEMBER. EXTENDED PERIOD OF VOYAGE RENDERS DETAILED INSTRUCTIONS UNNECESSARY DUE TO INABILITY TO FORECAST PRESENT MENTAL STATUS OR PROBLEMS WITH ACCURACY. SUGGEST DIVIDING AVAILABLE TIME BETWEEN RECALL OF PAST WAKING AND COLD SLEEP MEMORIES.

TRY TO RECALL ACTUAL EVENTS AND DREAM INCIDENTS WITH AS MUCH CLARITY OF DETAIL AS POSSIBLE.

"I can do that," said Devlin savagely, "without even trying."

He had been repeatedly told during training that the ability to remember was vital and that it must not be allowed to weaken, lest the human seedlings in their star-traveling metal pod drift forever as cold-sleeping and mindless vegetables. But that, apparently was not to be the danger. His memory of past real and dream incidents kept returning with a clarity and intensity that terrified him.

While he had been thinking back to that training session, he had been in the room, hearing every word the instructor had said, aware of the sounds of attention and inattention of the people around him, feeling the abrasive pressure of bristles against the backs of his fingers as he rested his chin on his closed fist.

This, he thought fearfully, *is what total recall is like.*

EVERYWHERE his mind's eye looked it was dazzled by the bright intensity of the images and the sharpness of sensory recollections. Their impact seemed to be worse

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when he closed his eyes, so he kept them open and tried desperately—and vainly—not to use his mind at all.

But then his hand rested briefly on the edge of the service panel and it was as if two full-sensor films were being superimposed. There was the sight and feel of the panel's edge, the open casket and the display that was still reminding him to exercise and remember. But there was also, equally sharp, the picture of one of the lecture rooms and an instructor saying, "...the duration of the voyage will be measured in centuries, but the biological time that will elapse—that is, the time during which you will be conscious and with your metabolism functioning normally—will be measured in days. And not very many of those. That is why the food and air must be strictly rationed—the water is recycled and no problem. You must not eat unless advised to do so by your cubicle display, no matter how long in real time it has been between meals. Food synthesizers, seed stores, domesticated animals in cold sleep will remain sealed in their special module, which can be opened only on landing.

"So it will be the duration of waking time that dictates your food intake," the instructor went on, "and you should not increase your hunger by staying awake longer than the allotted time, even though there is provision for delaying cooldown in an emergency. For the same reason you must avoid using the resuscitation overrides to warm one or more of the others before their allotted time..."

He smiled, showing teeth pointed in a style that had been fashionable three years earlier. Devlin remembered the digestive upsets and lacerated tongues that particularly stupid fad had caused in its time and then the instructor was talking again.

"It is not our intention that you arrive on your new planet suffering from malnutrition, but you must exercise restraint in the matter of—"

One of the group, a colonist whose name was Clarke, broke in with a question. He asked, "Suppose we are lonely rather than hungry. Suppose we feel the need, after all those centuries of time, of a little female company—or male company, as the case might be. Are we forbidden to—"

"You are advised most strongly against it," said the instructor. "By now you should be aware that your period of deprivation, counted in biological time, will be a matter of days or at most weeks. Try to pay attention. This matter will be explained in greater detail during the project philosophy lectures, but two reasons can be mentioned now.

"The first is that such premature couplings will involve a heavy expenditure of energy, which in turn will demand an increased intake of food. The second—and much more important—reason is that while we have proved to our complete satisfaction that repeated coolings and resuscitations in no way impair the male and

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female reproductive systems, we are still unsure of the results on such a delicately balanced organism as a recently conceived foetus. For this reason conception must not take place during the voyage..."

INEVITABLY the recollection opened up a line of thought that filled the cubicle with bright, remembered pictures of gargantuan grapplings and couplings from his dream past, many of which he seemed to be recalling for the first time and found too incredibly savage to be pleasant. But occasionally there were incidents—snatches of the king's lovelife when he was young, a memory of a small, dark, incredibly passionate girl from he knew not where—which were very pleasant indeed. But he could not hold on to the pleasant dream incidents because the raw, violent episodes were pulled in again by strong chains of association and engulfed them.

HE SAT for a moment on the edge of the casket, his eyes squeezed shut and his limbs trembling despite the exercises and the cubicle heaters. But closing his eyes blotted out only the cubicle around him, not the supersharp pictures that his mind kept throwing on the dark red screen of his closed eyelids.

What have they done to my mind?

"...During the voyage you will be thrown on to your own mental resources," Martin, the incredibly aged psychologist was saying. "You must use your minds because what you don't use you lose. We cannot use them for you in spite of the wide range of psycho-medication presently available to us.

"While it is possible to include mechanisms capable of administering medication of this type during the voyage," he continued, "it is imperative that the cubicle systems be kept as simple as possible to reduce the possibility of long-term component failure. Adding dispensing equipment of this kind would place a serious strain on the overall system. In any case, the temperature and radiation changes used during the hibernation and resuscitation processes could, over a long period, cause chemical changes in the medication with unforeseen and perhaps fatal results.

"You must also remember that you have been chosen because you are normal people," he went on, playing the beautifully modulated instrument that was his voice in such a fashion that what should have been an insult came across as a sincere compliment. "We have sought long and diligently for people who are normally motivated, normally nasty, normally accident-prone and even normally stupid. It is not—and never has been—our intention to make supermen or superwomen out of you. Geniuses, supernormal people, are like rare chemical elements—they tend toward instability. We cannot afford to be too sophisticated, to finesse too much. There is too much danger of component failure for us

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to risk people failure as well. So you are as stable as we could make you.

"you are like lead—or no, that is a trifle too stable. Think of yourselves as mud, but mud in which something will grow..."

With the remembered words came the memory of the almost imperceptible sighings, rustlings and creakings of the other colonists-to-be trying to remain silent and the sharp, fearful excitement of what they were going to do. But something had now gone terribly wrong.

DEVLIN opened his eyes and looked intently at his immediate surroundings, trying to fix his mind as well as his vision on the here and now.

If he could believe that wrinkled husk of a psychologist or any of his instructors—or even Brother Howard—his mind was his own. During the early stages of instruction he had been questioned under hypnosis, but this had been admitted by the medics concerned and had been simply a means of speeding up the acquisition of his personality data. There had also been a number of physical tests carried out under anesthetic—but those, he had been assured, had been aimed solely at establishing genetic and general health factors. A wide variety of medication and direct electrical stimulation were available—these could heighten sensation, improve memory and even insert memories which had not previously been there—but these procedures, he had been told, had not been used on the ship's personnel.

If he believed that, what explanation was there for the diamond-sharp dreams about subjects and events and people of which he knew that he had no previous experience? The trilobite sequence, the brontosaurus, even the incredible details of his dream of being a great king—his mind had contained no such source material before he joined the ship. So it must have been implanted afterward, perhaps was being implanted every time he underwent a cooldown.

Suppose the things they had told him were generally true, but just to be on the safe side they had decided to ignore the simple approach in his case. Perhaps someone had second thoughts and the result had been that, instead of fading and needing constant exercise and renewal, Devlin's mind and memory were growing sharper and more retentive with every cooldown. It had grown so sharp that he was, he realized, utterly terrified of going into cold sleep again.

Abruptly he wanted out of that cubicle and away from the process that was driving him mad. If there had been post-hypnotic commands against leaving the cubicle when not ordered to do so, they had faded over the centuries because he was able to use the manual override on the seal without any hesitation whatever. Then he was in the corridor, his breath hanging like misty balloons

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around his head. He was trying to think.

If he was, as he suspected, a special case, then the circuitry that had been feeding his mind with dreams and the mechanism for administering the supportive medication should be capable of being switched off. He did not have the technical training to recognize one of the circuits or mechanisms or switches if he saw them but by careful scrutiny he should be able to see differences in the wiring and telltales coming from his cubicle and those of the others. If he had an extra strand of cable or length of plumbing he could always cut it—if he could not follow it back to a switch.

Such a course would be very dangerous, stupid even. But the risk was acceptable because he refused to undergo cooldown again if there were the slightest chance that those incredibly realistic dreams would return.

For a few seconds he cringed as the remembered knife tore into his body and he was crushed by the cephalopod and a score of other violent deaths overtook him—then he fought desperately to force those memories away and return to reality. It was the cold that saved him finally, reminding him that he must go to the control center and switch on the heaters and put on coveralls before he did anything else. But he had gone only a few yards when he had to stop.

A man's body had been concealed by a cabinet that projected from the wall of the corridor. It was held between the wall-net and the metal plating, arms and legs outstretched and shining with the intense cold. Devlin could see that as much as possible of the body's surface was in contact with the cold metal and that the man had, of course, died from exposure. The reason for the death, as opposed to the cause, was equally easy to see.

The eyelids were held open by two pieces of adhesive tape.

Devlin, it appeared, had not been the only one to be singled out for special treatment and this man had chosen to die rather than go on dreaming.

XIII

FOR more than an hour Devlin checked and rechecked the control center telltales, searching for some clue to the identity of the dead man and where he had come from. He concentrated on the search because he badly needed something safe to think about—even though he knew that when the search was ended he would have to face the question of why the man had killed himself with cold and that would mean thinking about the dreams again.

But the colonist status displays showed only the pale blue that indicated awakenings for exercise only.

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Except for the negative indication beside the name and number of Yvonne Caldwell—and he had switched off that particular system after the girl had died—there was no evidence of a cubicle malfunction, which should have registered if a casket had been empty.

For a wild moment he wondered if the man had belonged on the ship or if he had wandered in from outside and the whole thing was, after all, just a complex simulation in which they were all being tested. Then he remembered the dead girl who had dreamed of being a female dinosaur. Could she have been undergoing the same kind of psycho-drug treatment as the dead man and himself?

Two colonists and one crew member had been or were being fed advanced and possibly experimental forms of psycho-drug. Of a complement of over two hundred, what were the chances of any three people's—chosen at random—being special subjects? Just how many people on the ship were undergoing the treatment? And why didn't the dead man's absence from his casket register on the status board?

Without being able to work it out exactly, he knew that a fairly large proportion of the ship's personnel would have to be undergoing the treatment for the first two he had encountered to be special subjects.

But wait. Were the three subjects truly random samples? The Caldwell girl was—she had suffered an accident with her cold sleep casket and died before the side effects of the treatment had become manifest. But the dead man was a different matter—a subject who had found Devlin because the treatment had driven him to his death in the corridor. It could be argued that if a large number of colonists were being treated the ship should be filled with permanently cold—and dead—bodies.

Perhaps it was.

Devlin shook his head violently, trying to discard that ridiculous idea and to jolt his mind into producing a more reasonable one. The status board and its associated monitoring system were designed to show the condition of each and every person on the ship. The dead man either did not belong to the ship or he was a colonist who had somehow devised a way of leaving his cubicle and concealing his absence from the monitoring system. Devlin's first step would be to find out who the man was if he did belong to the ship, and an examination of his cubicle should then show how he had been able to fool the monitor.

It occurred to him that a simple answer would be to open all the cubicles in turn until he found, or did not find, one that was empty. But he dismissed that idea as too impractical and time-consuming. Instead he would try to identify the man by searching his new, recently improved memory. He would be looking at events and people in his own past—a fairly safe and pain-free area in which to explore.

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DEVLIN put on warm coveralls and returned to the section of corridor containing the dead man. He detached him from the wall net and towed him back to the control center, where he placed the body on the spare couch. For a few minutes he focused a heater on the head and shoulders—then he carefully removed the tape from the eyelids and pressed them down until they were half-closed.

The heat had made the features look expressionless but natural. He tried harder to remember them.

Most of the lectures had been given in small rooms with rarely more than a dozen people present. Devlin concentrated on recalling a particular sequence and gradually the still features of the dead man became overlaid with the mobile, incredibly wrinkled face of the project's chief psychologist. The old man was seated at a desk behind which was a wall chart containing information and hundreds of small photographs of the ship's personnel.

"...you people represent the final intake for this ship," Martin was saying in his deep, resonant voice. "There will be no chance for all of you to get to know each other before the end of the trip, but we are fairly sure that your predecessors and yourselves will be fully compatible—"

"Excuse me, citizen, a question."

Devlin turned around to look at the questioner—a small, beautiful, dark-haired girl whose timidity was apparent in her tone and overly respectful manner. No person would normally address another as citizen unless he wore a gun-belt and Martin was as beltless as any sheep. She was, Devlin realized with a rush of hindsight, the girl who would accidentally kill herself in Blue 31—and who might have been lucky to have died when and how she died rather than live until her dreams drove her to self-destruction.

He forced his mind back to the girl's question, not looking at the mind-picture of her as much as at the other faces of the group, which should have included that of the dead man. He did not see it.

The psychologist must have nodded because the girl went on, "Surely we will be compatible. I mean, it cannot be your intention to transplant all the conflict and viciousness of our society to—to—"

She had lost her timidity, Devlin noted, just before losing her voice. He faced to the front again as Martin replied, "To be perfectly frank, our intentions are not clear even to ourselves. Certainly we do not intend to turn loose all the social and psychological ills of Earth on your future home, but we cannot be absolutely sure that we will not. We do not believe that we will because we are selecting and educating normal, average people."

"This appears to us to be the safest course," he went on pleasantly, "because supermen and superwomen are unpredictable during long periods in nonstress situations. Their

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treatment and training of their offspring are likewise uncertain, because their children are unlikely to be superchildren and the superparents may be unable to accept that fact. The result will be personalities subjected to abnormal pressures during the formative stage and pressures of abnormal kindness or abnormal cruelty can be equally damaging. There is also the high probability that the genetic backgrounds of the parents, the characteristics that made them superior in the first place, are in themselves abnormal—and that a strength in one area is usually balanced by a weakness in another.

"Since we are unwilling to export unnecessary abnormalities to the stars," he continued, pulling up the corners of his lipless mouth and modulating his tone to express humor, "we have decided to educate people who are moderately honest, moderately unselfish and even moderately abnormal..."

The words, the tone, the smallest changes in expression of that bloodhound's face came back to Devlin the way sensorama plays were supposed to but did not. Devlin went back a few minutes to look at the memory sequence again, but this time he was concentrating on the chart containing the photographs behind the old man.

PERFECT recall, Devlin discovered at once, did not improve the eyesight. He had to go back over the episode three times before he was able to remember a photograph, indistinct with distance, that might have been that of the dead man. The adjacent color-coding indicated that he was a colonist due for cooling in Red 23, and the status board gave his name as Thomas Purdy.

What, he wondered again, *have they done to my mind?*

But the question brought on a rush of too-perfect dream memories and, in self-defense, he returned to the memory of the lecture. The old man, Martin, had not seemed to mind interruptions, so that Devlin was able to listen again to Patricia, who had been sitting beside him, and the Caldwell girl. They had started by asking questions but had progressed to a three-way debate on the advisability of sending untrained personnel on such an important mission.

He could not remember anyone's asking if it were possible, after joining, to quit the project. Judging by his own feelings and those of Patricia, everyone was so glad to have been given the chance to run away from everything that the thought had not entered their heads—which said a great deal for the effectiveness of the initial selection procedures. But suppose that some of the personnel chosen were expendables, guinea pigs who would be tested to destruction in order to increase the chances of survival for the others.

The most important items to be tested, as far as he and the project were concerned, had been his mind and memory.

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The memory of his first decision awakening came rushing back—the intense, almost physical pain of his disappointment at having to pass that beautiful but doomed world. Then came the fly-by of Target Five, the evasive action he had taken and the memory of its physically repulsive and warlike natives.

He had already convinced himself that the ship was real, that it was light-years from home and that the things he remembered when he was awake were real. But now he was reversing, or at least weakening, that conviction. If his dreams were as sharp and detailed and intense as his waking memories—what, if anything, was real? Was it any more difficult to produce a full sensory hallucination of a space battle with extra terrestrials than a near-massacre in medieval setting or the adventures of a giant saurian?

Possibly not. But there was one essential difference between his dream and his waking shipboard experiences. During the former he had no control over the incidents that occurred—no matter how hard he tried there seemed to be no way of altering the results. With the latter, however, he had a choice. He had the power of deciding, for instance, whether he would leave the dead Purdy on the couch or carry him back to his cubicle.

He was on a real ship or on a completely real simulation of the ship. In either case anything that happened to him between the present moment and the time he returned to cold sleep or died, was real. He left the control center and headed for Purdy's cubicle to see how the other had managed to fool the computer into thinking that he was still in residence.

THE manual override allowed him to open the cubicle without initiating the resuscitation sequence, and the answer was obvious as soon as he bent over the casket. But the question still remained—how had Purdy let himself out of a colonist cubicle? Where could he have picked up the highly specialized knowledge to do so?

Purdy had been desperate but logical. Unsure of the extent of the computer's sensors and incapable of finding a way of killing himself that would be effective before a crew member could be roused to go to his assistance, he must have examined the personnel status board and found the answer in Blue 31.

Devlin had switched off Blue 31 when the occupant died. With the sensors out of action there was no way for the computer to know whether the girl's body was or was not still there, so Purdy had moved it to his own casket. The sensors did not operate during cold sleep, only while resuscitation was in progress to monitor the physical condition of the occupant; so the substitution had gone unnoticed. But when the occupant of Purdy's cubicle became due

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for revival, the substitution would be noticed—but as a substitution. It would be flagged as an organic malfunction for the attention of a crew member, probably Devlin himself.

Except that by then Devlin might also show as an organic malfunction, because the dead Purdy could be in Devlin's casket while he himself has dead in another part of the ship and long past caring.

Purdy had shown him the way out.

On his way back to the control center he passed the open door of his own cubicle and the closed one with Patricia's name on it. He had been trying not to think and trying especially hard not to remember, but he knew there were problems for him to face other than the simple, mechanical one of committing suicide. That was why he was going to return Purdy to the man's own cubicle, for a short time, anyway, so that he would have the control center to himself while he tried to face his problems.

Until recently—a few weeks or six centuries ago—he had done his best thinking when he was alone.

But something was happening in the control center when he returned from Purdy's cubicle for the second time. One of the repeater screens was glowing with a message, but he was too far away and the angle was too acute for him to read it. By the time he reached his couch the message was gone, to be replaced quickly with another.

REASONS FOR AWAKENING. TO CHECK POSSIBLE MALFUNCTION IN CREW MEMBER JOHN DEVLIN. DEVLIN IS ABSENT FROM HIS CUBICLE AND OVERDUE FOR COLD SLEEP REPROCESSING. TO CHECK FUNCTIONING OF MORLEY MUSCLE SYSTEMS, SPEECH ORGAN AND MEMORY.

"Patricia—" began Devlin.

ADDITIONAL TO INSTRUCTION CHECK DEVLIN POSSIBLE MALFUNCTION. IN THE EVENT OF SUSPECTED PSYCHOLOGICAL MALFUNCTION, DO NOT RISK MORLEY PHYSICAL DAMAGE BY CLOSE CONTACT. INSTRUCTIONS EXERCISE, SPEAK AND REMEMBER TO PROCEED IN CONJUNCTION WITH INSTRUCTION CHECK DEVLIN MALFUNCTION.

Patricia had been awakened to discover why he was absent from his cubicle and the computer had warned her against the possibility of finding his mind rather than his body malfunctioning—which meant that the project's psychologists and programers had also been aware of this possibility. Very carefully Devlin kept his mind on his present surroundings and his eyes on the entrance to the control center.

It would take her half an hour to finish her resuscitation exercises, find his cubicle empty and come to control. He wondered if she would be as terrified of going to sleep as he was or if she would be able to help him find an answer different from Purdy's.

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XIV

HER face was still and calm and lovely and as stiff as chiseled marble. When she spoke her voice was under tight control.

"What are you doing out of your cubicle? Are you all right?"

Devlin nodded and tried to smile. He said, "There's nothing wrong with me. At least, nothing more serious than a case of self-induced insomnia."

Suddenly she launched herself at him, knocking him backward into his couch. Her arms were wrapped around him so tightly that he found it difficult to breathe and she was trembling. He did not have to be a medic to be able to diagnose desperation rather than desire. With one arm he held her as tightly as she was holding him, feeling the warmth of her body through the metal mesh. With his free hand he stroked her hair which, because it was long and thick, still retained the icy cold of the cubicle.

"What's wrong?" he asked softly. "Bad dreams?"

Her face was pressed too tightly against his chest for her to speak, but he felt her nod.

"I was hoping," he said, "to meet someone on this ship who was *not* troubled by unpleasant dreams. It might have helped to disprove a theory of mine."

When she did not reply for several seconds he said, "We'll talk about it—you'll be all right, you'll see. And there is at least one answer to bad dreams. It is a bit drastic—and only to be used as a last resort—but it *has* been used at least once."

Devlin fell silent. Patricia was still trembling in his arms, but his position on the couch was very pleasant. Despite his confusion and anxiety about the ship and his terrible fear of going to sleep again, he began to react physically to the situation. As his fear and confusion ebbed, other memories rushed in to fill the spaces—memories of incidents in his own past as well as a flood of dream episodes of a similar nature involving females which, in many cases, were not even human. All at once his need for her became so great that he, too, began to shake.

Suddenly, violently, she pushed herself away from him and the couch, crying silently and shaking her head.

"What's wrong?" he asked angrily. But he knew the answer as soon as he asked the question. In fact, virtually every item of the dream material was supplying its own answer. Very few of those episodes had been pleasant for the female concerned.

"Put on a coverall," he said more quietly, "and sit on the other couch. I know what's bothering you and I—won't."

She relaxed enough to smile briefly, then tightened up again. Devlin turned his head away as she began pulling on the coveralls. He wondered why he felt more embarrassed

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watching her dress than seeing her naked. When she returned to the couch a few minutes later he told her of his confusion regarding the voyage—or the simulation of a voyage—and of his uncertainty as to whether everyone or only an unlucky few were having dream trouble. He told her about the solution Purdy had found to the problem and waited for her reaction.

She said finally, "I'm glad you're all right."

He turned on her, suddenly furious at her for putting the whole problem on a personal basis, then silenced his tongue behind clenched teeth. He knew that she was concerned for the other people in the ship and also afraid of what had been happening in her mind. And her feeling for his health and sanity did not have to be entirely selfish.

"I'm sorry," he said. "I shouldn't have— Well, let's both try to relax and talk about the problem without getting too uptight about it. That sounds stupid—what I mean is if our talk brings back something really unpleasant, let's sidetrack it by thinking of something nice. Remembering a difficult piece of music you may have heard at a concert is probably a good way. Nothing terribly unpleasant ever happens at a concert."

"Except," she said, smiling, "if there's a bomb hoax or the music is boring—I remember once going to sleep."

"You just said a dirty word," said Devlin. "But do you have any ideas? Suicide isn't a good answer for us."

"No future in it," she said. "And we're supposed to be the future." She shivered again. "I never thought of just plain tomorrow—of just taking another breath—as an awesome responsibility. But I agree with you—what happened to the Caldwell girl and Purdy makes it unlikely that all this—the whole ship—is a simulation. However, whether it is or is not isn't important. What's happening to our minds is. And so is the question—is the dream trouble happening to everyone or only to a few of us?"

Devlin nodded. "Right. We could probably establish the number of disturbed dreamers by studying the status board, calling up the details of their awakenings and checking if any of them resisted, by even an hour, the return to cold sleep. A check on the consumables will tell us if they stayed awake inside their boxes rather than breaking out to commit a Purdy style body swap and suicide."

"Does that mean," she broke in, "that you think some of the people in the cubicles are already dead?"

Devlin shook his head. "I don't see how they could have managed it. If they killed themselves prior to or during a cooldown, it would have been flagged as a malfunction and a crew member would have been awakened to investigate—you were awakened, remember, to check on a possible malfunction in me. I was required to check on the Caldwell girl."

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SHE was silent for a moment. Then: "I'm frightened. Some of my dreams were so depressing that if I deliberately recalled them I, too, might think that suicide was the only answer. But I don't want to think as Purdy evidently did. Maybe he was in an earlier intake. We don't know what kind of person he was—perhaps he was flawed in some fashion. I realize this is wishful thinking and not logic, but I don't want him to influence us too much—or the people who awaken later. There might be a chain-reaction of suicides," she ended grimly.

Devlin reached for her hand. She did not pull it away.

"Suppose Purdy was the first to encounter this problem," he said, "and we are the second. I didn't know him at all, but there is one difference between his case and ours—he didn't have anyone to talk to. It could be an important difference." She nodded wordlessly and he said, "Let's check the status board—"

It took many hours of concentrated, repetitious effort to call up and study each awakening in turn and to check each one for evidence of abnormal behavior or refusal of a colonist to return to his or her casket at the specified time. But all seemed normal.

Devlin decided to make spot checks on the cubicles and look for the evidence at first hand. The job would have gone faster if he and Patricia had split it between them, but somehow it was easier for them to keep their minds off unpleasant memories when they worked together.

Opening a statistically meaningful number of cubicles—performing the sequence of operations that allowed entry without initiating warmup of the occupant—took an additional three hours. But the effort required to control their minds—of looking at cold sleepers time after time without allowing themselves to think about the dreams that had to be going on inside those frozen heads—was much more tiring than the physical work involved. When they returned to the control center, still without the evidence of abnormalities, their voices were slurred with fatigue and they kept yawning in each other's faces.

But their fatigue was filled with the fear of going to sleep—it kept them moving about when they should have been resting in the couches. To help each other stay awake they ran another detailed check on the status board and found nothing, except for one minor departure from norm that seemed to have no bearing on their problem.

Devlin said wearily, "I feel stupid. But surely everything can't be as simple as it seems."

Patricia's face was pale with weariness so that the scar tissue on her cheek stood out like an embossed pink star. She said, "I've been doing some thinking. The Caldwell girl doesn't really come into our present picture—she died accidentally a long time ago—and the only thing Purdy

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had in common with us was that we three have been awakened more often than the others."

"Right," said Devlin, "Purdy and we have had one extra awakening. The computer says he had a test warmup during the first few years of the trip to check on the accuracy of the resuscitation timers. I had an extra awakening to attend to the Caldwell girl and you were warmed because of me. That means the trouble could affect everyone in the ship at their next awakening. We are not special cases—we have simply had an early warning."

"We ought to pass it along. We have to tell the others what to expect—"

"They'll know the problem as soon as they're awake, damn it. What you mean is that we have to think of a solution to it for them. And I'm too tired to think of anything."

"I'm tired, too," she said angrily, "and it keeps me from saying exactly what I mean. I meant that we must find a better answer than Purdy's."

"How much time," Devlin asked sharply, "do we have to find it? How long can we stay awake?"

She made no reply and he could see his own fear mirrored in her expression. He said, "I'm sorry. If we don't stop snapping at each other we'll have to send out for a couple of belts. Let's try, despite our fatigue, to think about Purdy's answer. Let's examine it, and the situation that drove him to it, in case there is something there that we can use."

THEY had to assume that Purdy had been terrified by his dreams and that he had tried hard to find an answer other than suicide. Probably he had tried so long and so hard that he had reached the same stage of physical and mental exhaustion as Devlin and Patricia were experiencing. But Purdy had been all alone. He had not been selfish enough to wake someone else to share his troubles, but he had not panicked.

Knowing that he had to sleep sooner or later, he had delayed sleeping for as long as possible by taping open his eyelids. Then, after stripping off his coverall, he had gone to an extremely cold section of the corridor and arranged himself so that the greatest possible area of his body's surface was in contact with the cold plating. The taped-up eyelids and the freezing cold metal would have kept him awake for some time, but eventually he had fallen asleep—and had probably dreamed briefly before dying.

"The extreme fatigue we feel and that Purdy presumably felt bothers me," Devlin said thoughtfully. "All of us were fit at the beginning of the voyage, which was only a matter of days ago in biological time—and we have not been working so hard on the ship that we should be ready to drop from exhaustion like this."

He paused, squeezed his eyes shut and shook his head violently, trying to jostle his brain cells into increased activity. Then: "Suppose the project people made a fundamental error in

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thinking that the long periods in cold sleep were enabling us to rest—a justifiable assumption. But let's suppose that in reality the cold sleep preserved the body's fatigue toxins along with everything else and that we haven't in fact slept properly since the day before we entered the caskets on Earth. Sleep deprivation causes some odd mental effects—disorientation, reduced self-confidence, that sort of thing."

"Are you suggesting," Patricia asked, smiling, "that we should have been awakened periodically and told to go to sleep?"

"Yes," said Devlin, "if they wanted us to stay mentally alert."

He did not smile.

Despite her fatigue she saw what he was driving at and began shaking her head violently.

"I know how you feel—I feel the same way," Devlin said. "But we won't be able to think properly about anything until we've rested, even if it is only for a few hours. And we won't be asleep at the same time. One of us will stay awake to rouse the other if the sleep appears to be disturbed—we won't be in a cold casket, unable to stop dreaming. At the first sign of distress—I'll explain about the mechanics of sleep, the eye movements behind the closed lids that indicate natural dreaming and so on—the other person will rouse the sleeper. We have to try it," he finished firmly. "I'll go first."

But as soon as he said the words his fatigue disappeared, driven away by the terror of dozens of remembered dyings. He could see that the same terror had the girl in its grip, but when she spoke his strongest emotion was one of shameful relief.

"If we are going to try it I'll go first," she whispered. "You have a better idea of the symptoms to watch for."

But it was not easy to make her relax. She kept fighting sleep for what seemed like hours, even though Devlin spoke softly to her, held her hands and finally reran a close-range probe sequence from his first observation awakening which showed the beautiful, park-like scenery of the satellite of Planet Three. Gradually her eyes began to close more and more frequently and remain closed for longer and longer periods. Her breathing became deep and regular after she passed the restive period on the threshold of sleep, but there were no indications of disturbance or distress.

Devlin rubbed his eyes and thought, *Poor Purdy...*

Watching her he wondered what was going on in the mind behind that lovely tranquil face and if it were possible that the fearfully sharp and intense dreams they had both experienced could go on without some outward sign becoming apparent. He did not think so—and gradually he began to feel a little envious of her escape. He remembered the young king tired after a strenuous training session with Hawn or lying exhausted in the arms of his favorite—and the

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feel of sunshine and warm mud on his enormous, leathery body as he dozed in the shallows of a prehistoric lake...

He came awake to find Patricia shaking his shoulder and smiling. She said, "I don't know how long you've been asleep, but I've had nine hours. As a sentry you're a total loss!"

XV

"HOW DO YOU feel? Have any unpleasant dreams?"

She shook her head. "I feel fine."

"Me, too," said Devlin. "But we should try to remember as much as possible to discover the difference between cold-sleep and the normal kind of dreaming. It might help us to understand what is going on."

Devlin had never been very good at recalling dreams—he had been convinced that he did not dream at all until he discovered during his medical training that everyone dreamed. But now, with very little effort, he found that he could bring back the memory of what his mind had been doing while he had been asleep.

There had been chaotic flashes of dozens of unrelated incidents, a kind of sorting and sifting through the records of his last waking period. His sleeping mind had tried to impose some kind of order and sense on them, with the result that people and places and incidents and timing were mixed in a fantasy world that was ridiculous rather than frightening. Some dreams had been logical within themselves, had consisted of events, imagined or remembered, that fairly shouted out his fears regarding the voyage and his own reduced probabilities of surviving it. His cold sleep memories had intruded also, but not seriously enough to scare him awake—and there had been one odd sequence involving Brother Howard.

The Brother had been talking seriously to him and Devlin had replied occasionally, but the whole sequence had been completely silent.

He asked Patricia, "Find anything?"

"I don't think so," she said. "But then, I'm not sure what I'm looking for. There was nothing in the dreams as frightening or intense as in the cold sleep kind, although I'm pretty sure that if I tried I could recall them in just as much detail—my memory seems to be enormously improved. Some of the incidents— one involving Brother Howard, for instance—were completely ridiculous. I'm—very hungry."

"What did you say?"

"I'm hungry," she repeated. "And I know that we shouldn't really be awake and should not, therefore, draw on the ship's consumables. But being practical— Well, Purdy and the Caldwell girl will not be using their allowance and we could—"

"A good idea. But I didn't mean to ask about your hunger. You mentioned dreaming about Brother Howard. Was the dream silent? Did he talk during it, but you couldn't hear him or yourself speaking?"

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She did not reply, but her expression was answer enough. Once again he wondered what had been done to their minds.

After a long and baffled silence he said, "Well, it seems that we can stay warm and eat and sleep for about two weeks without using anyone else's rations. That should give us enough time to come up with some alternatives. I feel happier thinking about this in my own language, but if I forget something or seem to be going wrong, don't be afraid to interrupt, right? Now suppose we treat our problem as a dangerous and possibly lethal symptom of a disease. The first step would be to find out how the infection, or whatever it is, was introduced into our systems."

THE possibilities, Devlin went on to explain, were that it had been deliberately introduced by mechanical means, either before the voyage had started or during it. If the former, it had delayed-action effects that were only now becoming manifest. If the latter, the effects were cumulative and the method of introduction was probably incorporated in the cooldown processing or it was taken with the food or water.

"In that case," Patricia broke in worriedly, "we shouldn't eat or drink."

"When we get hungry and thirsty enough," Devlin said wryly, "we'll find good reasons why it could not have been introduced with the food and water. But right now we have to search the ship's cold sleep and life-support systems for indications that some form of medication is being introduced. We must also search our memories for clues to some form of treatment that might have been given to us before we left Earth.

"I don't know any more than you do what we are looking for. It could be a hallucinogenic drug, direct modification of memory psycho-radiation techniques—they were getting very good at that sort of thing before I left the hospital—or post-hypnotic verbal or visual triggers for an implanted memory sequence placed during training. Or it could be a mixture of all three—and/or in combination with drugs or techniques we can't even guess at. One good thing is that we can look at two sources of infection—the ship and our training period memories—at the same time."

But their detailed examination of the ship's cold-sleep, life-support and food-dispenser systems turned up nothing suspicious. True, the information was available only through the relevant computer displays and it was possible that the computer had been programed to conceal the data they were seeking. But such precautions would have introduced highly dangerous complications into the mission—Devlin felt he had to assume that the information given was accurate. Still, to check on this accuracy both he and Patricia returned again and again to memories of their training, to lectures and simulations,

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conversational asides and wall charts, circuit diagrams and stores inventories—their ability to remember, whatever the reason for it, continued phenomenal. One important piece of information they learned was that the ship was pushing hard against its limits of operational safety.

The next fly-by, due in just under one hundred and eighty-one years, would probably be the last with a fully functioning ship.

"I WISH we hadn't found out about that," said Devlin later, while they were discussing their findings in the control center. "We're still trying to solve the cold sleep problem and knowledge of that fact tends to sidetrack one's train of thought."

"Not necessarily," she replied. "The data on the next target system looks good—one of the best prospects we've had, in fact. Would it be possible for us to reprogram the computer so as not to awaken anyone at all until we go into landing orbit?"

Devlin shook his head. "One of the things drummed into us was the necessity for mental and physical exercise at regular intervals. Besides, I wouldn't like to fool around with programs as important as that."

"But one of the things they were worried about," she argued, "was the possibility of memory loss. Reduced temperatures were supposed to allow the electro-chemical charges used for memory storage to leak away. That is not happening."

"I know, I know," said Devlin irritably. "Our problem is that we seem to be registering too many memories, not losing them. But you're forgetting that the period will be much longer than one hundred and eighty-one years. If the fly-by shows a planet suitable for colonization we have to decelerate and return, so that it could be three times that length of time before we are in landing orbit. Even if we could be sure there would be no physical or mental deterioration I'm still not convinced that we should risk an arbitrary cold-sleep period unbroken for more than five hundred years. To crib from Shakespeare—what dreams might come?"

"But we must do something!"

Devlin was about to snap back at her, but he stopped himself in time. They were both tired and anxiety, as it usually did, was making him hungry.

He smiled and said, "Let's eat."

She yawned suddenly. "And sleep."

Neither of them was afraid of what might happen during a warm sleep and both of them felt relaxed in their couches. But, perversely, sleep would not come. Devlin's mind would not leave the problem of the cold dreams and Patricia could not stop talking about it.

"From what you've just been saying," she said after yet another exercise in circular logic, "we can be sure—or fairly sure—that any of the psycho-drugs, whether they were

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hallucinogens, personality changers or whatever, would not remain active over this length of time. Despite the fact that an efficient cooldown system is supposed to halt all chemical and metabolic reactions, those particular drugs are composed of unstable material which is also highly complex structurally. Too, the most effective ones had not been in existence long enough before our departure for proper long-term tests, a couple of centuries or more, to be carried out. The project planners would hardly have risked the success of this mission by using drugs with long-term effects that could have mental effects on us they were unable to predict."

Devlin replied tiredly, "Still, they may have taken the risk."

She shook her head. "If they had administered any of the known effective—and unstable—drugs, any biochemical instability would react against the original purpose of the drug. Our memories would have remained normal or perhaps even faded instead of becoming sharper, as has happened. More likely such instability and subsequent breakdown of the chemical structure would have caused severe and apparent brain damage and, at very least, the type of hallucination generally encountered with derivatives of LSD. We have had nightmares—and bad ones—but they were invariably self-consistent."

"You are saying then," said Devlin, rubbing his eyes, "that they didn't adminster a psycho-drug."

"Not exactly," she replied. "They could have administered something that would not change over a long period because it was nonmaterial. The treatment could have been hypnotic rather than biochemical."

DEVLIN rolled onto his side so that he could look across at her. He said, "All right—let's kick that around. Hypno-conditioning is affected only by the passage of biological time, so as far as our conscious minds are concerned the conditioning took place only days or weeks ago. Assuming you're right, it was probably administered at intervals during training. But we're still left with questions."

"I know that. But I think something like it is probably close to the true explanation."

"Until we know the true explanation," he said dryly, "I can't answer that. But assuming it is the right or nearly right answer, think of the work involved for the project staff. Hypnotizing us and concealing the fact with various forms of post-hypnotic suggestion would have been the easiest part of the job. The rest would have had to consist of subjecting us to the right sensory impressions—and fine psycho-surgical work of a type that needs a lot of time. I don't know when all that could have happened. But my strongest objection to your theory is based on the quality and detail of the dreams themselves and the apparent duration of the dream sequences. I say apparent because I know how

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time can be telescoped during conditioning, but those dreams went on for years. Still, assuming your idea to be correct in every detail," Devlin ended, "how does it help us?"

"I'm not sure," she replied. "But wouldn't it be possible to search our memories of the training period for time gaps and try to use our improved memories to break those post-hypnotic commands? Alternatively, isn't it possible that if we go over some of those dream sequences again—the humdrum episodes as well as the more dramatic bits—we might be able to spot the joins or see some evidence artificiality or error in the dreams?"

Devlin sat up suddenly and swung his legs off the couch. He said, "I see what you're driving at. You're suggesting that if we can demonstrate that the dreams have been imposed from without we can communicate this fact to the others and perhaps convince them that it is possible to negate the worst effects."

"That's it," she agreed. "Even when I dreamed of being a crustacean or a wolverine I was still aware of being myself. Maybe we can do or suggest something to strengthen that awareness."

Devlin nodded. "It might not be as simple as you make it sound," he said, "but where do you want to start? With the dreams or actual memories?"

"With memories," she said firmly. "I'm very reluctant to go back to some of those dreams—and we just might find what we're looking for in the real past. I realize that the actual conditioning sessions would not show because we have been ordered to forget them, but we must have undergone some prior mental preparation. Brother Howard might have let something slip during those early meetings—in the park, at the project building or in the rec hall. If hypno-conditioning was being used, he must have known about it."

Devlin said, "I don't think he let anything slip in the park or during his first visit to the block. I went over that day as a memory exercise during an earlier warm-up. It was a pleasant and important day for me—except for the riot on the way home—and I remembered it in considerable detail—"

"Funny—I picked the same day to remember."

"We'll go into the deep dark, psychological significance of that later—" Devlin smiled—"because if we did it now we probably could not remain objective about ourselves."

"Later that evening," Patricia said, "Brother Howard was very objective about us. Objectionable, even."

"My cooldown warning came before I was able to remember into the evening," Devlin said, "and that was the time when the Brother spoke very freely. I'd like to go over that memory again, starting with the time when your father left us..."

CITIZEN MORLEY had been a small man who did not try to

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compensate for this fact by making a lot of noise. That night he wore an empty belt signifying that, although he was technically safe within and among the residents of his block, he was not entirely surrounded by his own family circle. When Brother Howard and Devlin found his table and were introduced by Patricia, her father, for all his mildness and friendliness, looked quietly furious.

She explained the presence of the Brother and doctor by saying that her self-inflicted wound had caused them to be concerned about her mental as well as her physical health and that the two men wanted to help her. Citizen Morley, as he handed her formally into their charge, said that he could not really blame his daughter for doing as she had done, but it was obvious to Devlin that if Morley ever did find someone to blame that person's life-expectancy would be drastically shortened.

For their first few minutes alone at the table Patricia, Devlin and Howard had privacy of a sort. The Brother's profession was obvious from his dress and Devlin's from the ornate dress earring he wore on semi-social occasions. But a crowd of high-spirited but essentially good youngsters—that was how the block sociologist described them—seemed intent on harrassing the two half-sheep.

None of them were old enough to be citizens, which meant that theoretically anyone living in the block who had reached maturity had the right to chastise them. In actual fact, however, no one who was not a full citizen with a large number of citizen relatives could do so if he or she expected to go on living, much less working, in the block. And in any case it would have been senseless to try chastising a group that outnumbered the trio five to one.

Devlin suggested adjournment to the roof.

The high-spirited but "essentially good" youngsters were not allowed on the roof lest they render it as uninhabitable for ordinary people as the Maxers made the city parks at night. But Brother Howard and Devlin were adults and responsible, theoretically, even though they were not citizens. And the fact that Citizen Morley had placed himself on duty with the roof security party, which searched them for weapons, saved a lot of red tape.

A cold wind was blowing from the sea, dissipating the air wastes inland and carrying away the sounds of desultory gunfire from the business districts. The three found a radiant plate, which at once provided shelter from the wind and gave a good view of the city through the anti-suicide netting while its warmth bathed their backs. Occasionally a security man came along to check on the plate's functioning—the plates were not there for the convenience of block-dwellers on cold nights, but as infra-red dazzlers against high-spirited but essentially good types in other blocks who wanted to shoot at roof security

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men with heat-sighted or heat-seeking weapons.

Brother Howard's conversation that night, while interesting, was not very informative regarding the project. Without becoming openly insistent about it he was steadfastly refusing to change the subject—and the subject was Patricia. Without ever telling her why he wanted to know, the Brother found out a great deal about her—and Devlin knew enough to become finally aware that she was being subjected to one of the most expert verbal probings he had ever witnessed.

After more than two hours of it there was an interruption—a sharp detonation and ground-level flash from a few miles away—which stopped the interrogation long enough for Devlin to ask a question.

"Now that you know everything there is to know about Patricia," he said, "I expect it will be my turn. Then, presumably, you will finally decide whether or not we are suitable candidates for training?"

The light was too weak to enable Devlin to read Howard's expression accurately, but the other sounded impatient as he replied, "I decided that you, Doctor, were suitable a few hours after meeting you for the first time. Deciding about Miss Morley is a longer and more difficult job, because no man can get inside a woman's mind and fully understand what is going on there. But don't worry, either of you—you will be on the ship. The process you are shortly to undergo is not really training as much as a transfer of necessary information, an adult education exercise—" He broke off, then said worriedly, "I'm not sure of my bearings from this block, Doctor. Was that explosion close to the project building?"

"No, nowhere near it—" A second and larger explosion occurred in the same area as Devlin spoke. Armored fire and ambulance units were jumping toward the trouble spot, their positions signaled by flashing blue lights and the strident donkey-call of their sirens. As they converged on the blaze set off by the explosions, heavy gunfire and a few armor-piercing rockets hammered at them from the surrounding darkness. The ambulance and fire-fighting units grounded themselves to protect their vulnerable undersides, unable to deploy their equipment. Then the lights—and sirens of the city security heavies, a great many of them, came bounding to their support. It was rapidly becoming impossible to hold a conversation, even at a distance, without shouting.

Citizen Morley appeared out of the darkness.

"This looks like a bad one," he said, speaking slowly and clearly. "The timing and tactics indicate cooperation between a large number of protesting factions and the incident, together with the city security reaction to it, is sure to involve a lot of uncommitted local residents. That will mean confusion and wild shoot-

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ing. You will be safer in your room, Patricia—and I suggest that you gentlemen will also be more comfortable below."

He could have sent them from the roof with a few short, sharp words, Devlin thought, but Patricia's father was a citizen in the true sense of the word—firm, decisive, responsible and considerate. As he turned to go below Devlin's last view of the incident—the most serious of that week—was of a writhing, red and many-petaled flower growing rapidly in a bed of flickering blue stars.

The sight had a terrible and all too familiar beauty...

THE control center bulkheads took on substance behind the fading mind picture and Devlin said, "The initial explosion and his worry about the project building may have put the Brother off guard for a moment. Perhaps he did not mean to say what he did about training and education. I asked him about it later. If you give me a few minutes I'll recall the conversation for you."

She shook her head and said, "I'm hungry."

"So am I."

"I'm more immediately worried about the others on board this ship," she went on. "I think we've exhausted the subject of Brother Howard. Do we eat and sleep again or do we try to check cold dreams, as we planned?"

Devlin sighed. "All right—we'll check the dreams for faulty workmanship for a while. Then I'll go back to Brother Howard talking on my surgery couch. But I suggest you begin with a pleasant episode."

Patricia shook her head again. "We're not trying to protect them against pleasant dreams."

Devlin said angrily, "You can do just as you please, of course." He lay back in his couch and stared straight ahead. He was beginning to realize that a girl strong-willed enough to disfigure herself for wholly unselfish reasons could, at times, have headstrong mannerisms that were not entirely charming.

Very carefully he sent his memory probing.

His biggest problem was his own ignorance. He did not know enough about the subject to pinpoint a possible technical error in the sensory impressions or environment of the trilobite or the giant saurian of his dreams, or tell if the weapons and armor given to the young king by Hawn were correct for that historical period. Some of the vegetation, coloration of fur and skin, methods of making and fastening clothing surprised him in retrospect, but were not necessarily incorrect.

Timidly Devlin began to move into the actively unpleasant areas, even though he found it impossible to remember the finer details of environment and sensation through the floods of remembered pain. He had the feeling that these dream portions were crude and melodramatic. If they were in fact psychological con-

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structs the people who might have implanted them might also have been a little careless.

He had small knowledge of the physiology or nervous systems of the majority of the creatures he had dreamed himself to be—with one exception. The king had been a man, a human being, and Devlin knew humans as only a trained medic could know them. Very carefully he recalled the assassination, how the knife had felt going in, how it had felt inside the wound and how he had felt, going rapidly into shock from the loss of blood. Devlin went over the incident again and again. He could detect no technical or physiological errors. Suddenly he sat up.

"Something's wrong," he said harshly. "Have you been going over the painful stuff, too?"

She nodded. "A very unpleasant death in childbirth in a smelly cave with—"

"You don't seem unduly bothered."

"No," she said. "It wasn't pleasant, but it wasn't nearly as bad as the first time I remembered it. Why is that?"

Devlin was silent for a moment while he explained it to himself before he began giving her the answer.

It was simply that Patricia and he had done something neither the Caldwell girl or Purdy had done—they had slept normally. The situation was analogous to the painful post-operative period following major surgery. The patient remembered the experience for the rest of his or her life—but the first good, sound sleep filtered out much of the memory of the associated suffering.

"SO IT'S as simple as that," Patricia said when he had explained. "When we were warmed and awakened from cold-sleep the memories were like a raw nerve. But after we slept naturally they became normal memories, unpleasant but not actually painful." She laughed suddenly. "The others will be relieved when we tell that all they have to do when they are awakened is to go back to sleep."

Devlin did not smile. He was still worried at the prospect of another interminable session of cold dreaming.

He said, "We probably do have the answer to the cold dream suicide problem, even though we still don't know the cause and/or reasons for the dreams. But we can go on working on that problem while we are waiting to be cooled. Right now we should tape instructions to the others," he went on firmly, "and I see no reason for our eating while we are doing that. Unless you have a strong objection, I suggest that we go cold as quickly as possible."

"Yes," she said, "Before our feet get a chance to go cold before we do."

The message they composed was as simple as possible to avoid con-

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fusing people who would be freshly awakened and very frightened.

URGENT MESSAGE FROM THE CREW TO BE GIVEN TO ALL COLONISTS AT EACH AWAKENING FROM COLD SLEEP. MESSAGE TO BE INSERTED BETWEEN PERSONAL GREETING AND SHIP STATUS REPORT.

MESSAGE FOLLOWS.

IT IS PROBABLE THAT INDIVIDUALS AMONG SHIP'S PERSONNEL ARE EXPERIENCING SEVERE MENTAL DISTRESS AS A RESULT OF DREAMS ENCOUNTERED DURING COLD SLEEP. THE REASON FOR THE INTENSITY OF THESE DREAMS IS NOT YET UNDERSTOOD, BUT THE DISTRESSING AFTER-EFFECTS CAN BE REDUCED BY ONE OR MORE PERIODS OF NORMAL SLEEP.

SINCE IT NOW SEEMS LIKELY THAT COLD SLEEP DOES NOT PERFORM THE PHYSIOLOGICAL AND PSYCHOLOGICAL REPAIR FUNCTIONS OF NORMAL SLEEP, AND THAT FATIGUE TOXINS ARE ALSO PRESERVED INTACT DURING COLD SLEEP, THERE SHOULD BE NO DIFFICULTY EXPERIENCED IN SLEEPING NORMALLY.

IF THE CONSCIOUS PERIOD SEEMS TOO SHORT FOR NORMAL SLEEP, EXTEND IT WITH THE EMERGENCY OVERRIDE FOR AS LONG AS NECESSARY BUT BE SPARING OF CONSUMABLES.

CARRY OUT ALL OTHER PHYSICAL AND MENTAL EXERCISES AS INSTRUCTED.

MESSAGE ENDS.

They agreed that that message should do it, until Patricia became worried that the constant use of the manual overrides might worry the computer into waking the crew to check for possible physiological malfunctions in people who insisted on sleeping in their caskets instead of being out of them, exercising. It was a valid cause for worry, so they spent an additional few minutes modifying the computer instructions to cover this possiblity. Then they spent several minutes more in very close contact without, however, recalling unpleasant dream memories.

As they were returning to their caskets Patricia said sadly, "Poor Purdy. If only he hadn't managed to die in his sleep."

XVI

HE HAD two hours before cool-down—more than enough time, Devlin thought, to recall the details of a conversation that could only have lasted for half of that period.

Brother Howard had been tired, irritable and argumentative. Using hindsight, Devlin thought he might find that the Brother had also been less than careful about concealing his true intentions. At the time Devlin had not known enough to ask the right questions...

"I don't quite understand your acceptance standards, Brother," Devlin said. "You keep insisting that the colonists are nothing special. In fact,

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you seem to suggest that their mediocrity is a virtue. Surely you must be looking for some special qualification?"

For a few seconds Devlin thought that the Brother was not going to answer. He lay on the examination couch, fully dressed except for his shoes and high, tight collar. But then he stretched, sighed and said, "These days mediocrity is a special qualification."

"If it were as simple as that," said Devlin, irritated, "all you would need of us would be our names, ages and respective genders before putting us into cold storage until it was time to go. I need a serious answer to a serious question."

"And I gave you a serious answer," the Brother replied. "But what you really need, perhaps, is to know if you are just a little bit above normal, or someone who is a shade more average than the others. Well, the trip requires two people aboard to observe, make a few simple decisions and—very occasionally if at all—to perform simple actions. For this reason," he added sardonically, "we have chosen carefully from our average travelers two who will act as the ship's crew."

"But why the average people?" Devlin burst out. "What is it that you're afraid of? Surely, for the success of the project, you need an above-average crew, at least? Even in these degenerate days there must be a few stable, highly intelligent and dedicated supermen—"

"Like me?"

"If this is something I shouldn't know about say so," said Devlin angrily. "Don't bother to make jokes."

The couch sighed as Brother Howard raised himself to his elbows. He said, "I am too tired and there is too little time left for me to waste it in making jokes. You would like to know why we seem so abnormally interested in normal people. Well, I must admit that there are a few pieces of information that must be concealed from you—for the present, that is—but this is not one of them. But before I try to answer I want you to think about the society we are currently living in and all too frequently dying in. Where would you go to find a superman under these conditions? This is assuming that supermen ever existed in the first place—not just overtrained, hyperconditioned and forcegrown human beings. Then ask yourself where do we, the human race, go from here?"

This, thought Devlin impatiently, *is the sort of question I have debated many, many times.* Mostly he had argued on the side of the optimists, insisting that the combination of the arts and sciences—sensitivity joined with high technology—were bringing Earth's culture to the brink of a new and even greater Renaissance. The suffering of a comparative few individuals and the excesses of others were only to be expected, just as the first Renaissance had been marred by

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its plagues and famines and unbalanced distribution of wealth.

HE DEVELOPED the argument for the Brother, insisting that in spite of the fact that so many of the individual and group activities were destructive, there had never in all of recorded history been so much freedom of expression, so much medical care, so much food and associated comforts available to the population as a whole. Construction of mass accommodation buildings, road systems and recreational areas—especially in cities with strong and psychologically well-trained security forces—was slowly but surely, he had thought, pulling ahead of the protest groups that were bent only on wrecking civilization for reasons they themselves could not adequately explain. And there had always been danger to the individual in a growing vital culture—carnivourous beasts prowling around the village at night, robbers and assassins infesting the highways and cities and now protesters and Maxers and security forces...

"You're an oppy, then," Brother Howard broke in. "You *like* it here?"

Devlin shook his head. "You know I don't. But I want to be optimistic, mostly because I don't want to agree with the doomsters. When I think about the drugging and killing and senseless destruction of everything that has been or is being built, chaos and ultimate doom is all that I can honestly foresee. Yet the people who realize that we are headed for trouble—and who try to rise to the top where they can do something about it—are usually too old to survive the affairs needed to get there. And the ones who do get to the top without fighting are the ones who do what the people at the bottom want them to—which is nothing, because the people at the bottom don't know what they want.

"Even so there must be a few who reach the top without losing their ideals, their sensitivity, their feeling of responsibility for the long-term welfare of the people below them," Devlin went on. "These are the kind of people you should send to the stars. I know that I seem to be arguing myself out of a berth on the ship—and I don't want to do that—but I don't think that I'm really fitted for this job. I don't know who *is* fitted or even—"

"Nobody is really fitted for this job," said the Brother dryly, "because it is a brand new one. But you could be right. There are probably a few altruists and far-seeing types around, but they are much rarer than you realize. The majority of the people from the middle levels to the top, even within the starship project, are motivated by intelligent—sometimes highly intelligent—self-interest. They do very valuable and necessary work, all of them, and very often display compassion and other noble qualities. But when you probe deeply enough you find that they want power over people, even if it is the

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power to do only good. That, naturally, is an absolute bar as far as I am concerned."

"But why?" asked Devlin. "Surely we need leaders where we're going? And what about you, Brother? Why aren't *you* a suitable candidate?"

"Because," said the Brother, "my self-interest, intelligent or otherwise, impels me to stay at home and exert pressure." He smiled wryly, held up one hand and pressed the index finger and thumb together until both nails were rimmed with white, then added: "You could say that I want to give someone, somewhere, the pip."

Devlin shut his mouth firmly so as not to express his anger verbally, but he could not clamp down on the expression on his face.

"Before you accuse me of joking again," the Brother went on, "or you run to a citizen neighbor to borrow his belt, let me tell you that I am giving you the sober truth even if it is, at times, couched in non-serious language. I am a completely unsuitable candidate. Before I became a Brother I was the kind of person you think is needed for this project—highly trained, highly intelligent, emotionally stable and possessing all of the qualities you seem to think are desirable for the job. But then I had a revelation—a quasi-religious experience, you might say—that made me a fanatic. As such I had time and energy for only one form of activity—"

Once again he held up his tightly pressed thumb and index finger.

BEFORE DEVLIN could reply a triple shock made the surgery walls creak. The emergency PA began calling for all block security personnel, regardless of status, to evacuate the roof in preparation for a landing by city security forces.

Obviously the protest was turning into a big one with—judging by the shocks to the block's structure—limited mass-destruction weapons being brought into use. This was only the third time in a year that such a thing had happened in the city, but it could mean serious damage and perhaps destruction of the block's shelters and protector forces and cause a large number of bystander casualties. Devlin sighed and tried not to think about it while he was waiting for the Brother to start making sense.

"My view of the future is both oppy and doomster," the Brother went on, raising his voice above the sound of the PA. "Earth's present high level of science and culture and the vast majority—if not all—of the people who live on it will be gone within a century. And it could all fall apart within the next decade. To me—and remember that you had the same idea—Earth is like a large, overripe but not quite rotten fruit.

"I arrived at this idea before my, well, revelation, when I was still a sane and well-integrated superman," he went on without smiling. "The analogy is a reasonably good one. Initially the fruit is small and bitter

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and not at all pleasant. There is no subtlety of feeling in such a society, no freedom, little happiness for even the very few who grasp power because of the violence that brings them down. But later the fruit begins to grow and ripen. Order is imposed on the earlier chaos. Laws and community cooperation replace continual war and give much more individual freedom, which in turn sends minds questing inward toward philosophy and outward into science. The fruit continues to ripen, becomes mature. No longer is anyone forced to labor mindlessly for two-thirds of his or her waking life. There is time to develop new and subtle tastes and forms of pleasant or painful activity. Everyone feels free to indulge in any pursuit he or she fancies, and to go to hell if that is what an individual wants to do. Many people unfortunately feel free to take the others to hell with them. So the fruit becomes overripe and the next stage is dissolution and decay."

"So endeth the parable." said Devlin patiently.

"So beginneth the parable." the Brother replied firmly, "because here the analogy breaks down. Our growing ripening fruit is not free to expand indefinitely, you see. It is growing within a thick, strong skin which produces compression effects. Population pressure, diminishing agricultural society? Or should we send hardy, thrusting, aggressive seeds which will survive, spread rapidly and perhaps choke themselves to death as we are doing now—or be destroyed by someone because they have become an obnoxious form of weed? Many times we have asked ourselves these questions, trying to find a seedling whose composition best represented our race.

"The more deeply we went into the questions the more frightened we became of making a mistake," he went on, rubbing the back of his hand across a suddenly sweating forehead. "In the end we succumbed to moral cowardice and decided, if you could call it a decision, to select for mediocrity... It can't be my imagination. What is happening to your cooling system?"

"Probably the security force on the roof are drawing power from this area for their equipment," Devlin replied. "The place won't become unlivable, but you'll feel more comfortable without your blouse—that is, if your beliefs allow you to—"

"Thank you, no problem," said the Brother. While he was unfastening his black garment he went on: "So you will find no citizens or ex-citizens traveling in the ship. There is nothing at all special about the colonists, other than they are only moderately good, moderately intelligent, neither too idealistic nor too cynical, not too lazy or too energetic. They are—well, average.

"You see, when we really began to look into the situation we found that the ordinary non-aggressive, nonviolent, moderate and average people have always been with us and have

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always been in the majority. They have always been there—a great, inert mass of humanity who refused to make anything but the smallest change in their thinking and lifestyles when our flashy supermen and world conquerors tried to change, for good or bad, their world. Throughout history they have been like a great mass of sheep, slowly evolving—sometimes because of, sometimes in spite of, the scientific and cultural predators in their midst. They have grown slowly but they have survived as a type even to the present day—" He broke off as he pulled the blouse over his head, folded it carefully and placed it on the floor.

"—and that is why," he added, "the meek will inherit the new Earth."

Devlin tried hard not to stare at the upper torso the Brother had revealed. The other was in his middle or late fifties, but the muscle tone was still good. However, the onset of the degenerative processes had caused the scars, which had been left by the removal of a large number of surgically implanted bio-sensors, to show clearly. Devlin had seen pictures of such scarring in the textbooks but until now had never met, or ever expected to meet, such a case. He had not believed that stellar astronauts really existed.

"If supermen are excluded." he said, clearing his throat and trying not to stare at the ghostly scars, "surely the ordinary people must be given training to prepare them for— I mean, we could meet anything out there."

"What training could we possibly give to an average, normal individual," Brother Howard replied, "that would prepare him to meet the completely unimaginable. No, training as you understand the term is out. It might cause our carefully selected average people to warp or break—and we can't risk that. No, Doctor, the process does not involve training, but education..."

SUDDENLY the picture and sound of the Brother began to dissolve as a change in the lighting beyond Devlin's closed eyelids brought him back to present time. He opened his eyes to look at the cubicle display.

GOOD NIGHT DEVLIN.

The fear of what the next frigid sleep might bring came rushing back to him as he realized that the cold explosion was only seconds away. But there was still a large portion of his mind that remembered only the feeling of awe at having made contact with a stellar astronaut who, it had been rumored, had been among the first to test hibernation anaesthesia in space conditions—and the Brother's enigmatic closing remark before he, too, had wished Devlin good night.

"...before you can understand the people you may meet you must first fully understand yourself."

TO BE CONCLUDED

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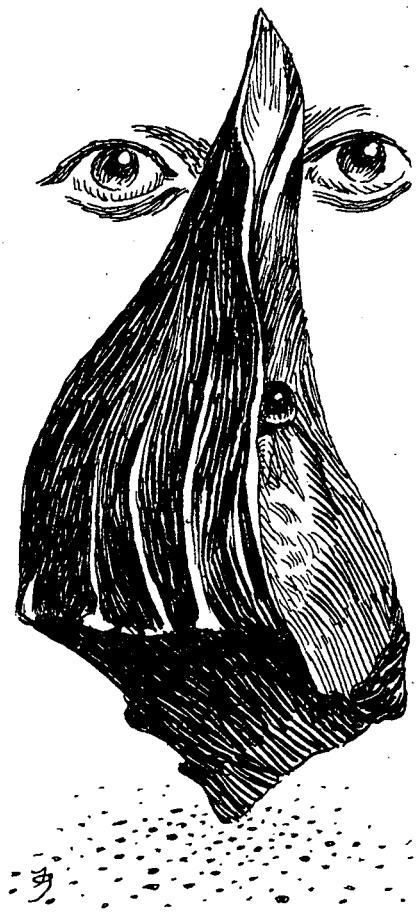
BY THE SEASHORE

Directly north of the North Pole lies a world of understanding . . .

R. A. LAFFERTY



THE most important event in the life of Oliver Murex was his finding of a seashell when he was four years old. It was a bright and shining shell that the dull little boy found. It was bigger than his own head (and little Oliver had an unusually large head), and had two eyes peering out of its mantle cavity that were brighter and more intelligent-seeming than Oliver's own. Both Oliver and the shell had these deep, black, shiny eyes that were either mockingly lively or completely dead—with such shiny, black things it was hard to say which.

That big shell was surely the brightest thing on that sunny morning beach and no one could have missed it. But George, Hector, August, Mary, Catherine and Helen had all of them missed it and they were older and sharper-eyed than was Oliver. They had been looking for bright shells, going in a close skirmish line over that sand and little Oliver had been trailing them with absent mind and absent eyes.

"Why do you pick up all the dumb little ones and leave the good big

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one?" he yiped from their rear. They turned and saw the shell and they were stunned. It actually was stunning in appearance—why hadn't they seen it? (It had first to be seen by one in total sympathy with it. Then it could be seen by any superior person.)

"I wouldn't have seen it either if it hadn't whistled at me," Oliver said.

"It's a Hebrew Volute," George cried out, "and they're not even found in this part of the world."

"It isn't. It's a Music Volute," Mary contradicted.

"I think that it's a Neptune Volute," Hector hazarded.

"I wish I could say that it's a Helen Volute," Helen said, "but it isn't. It's not a Volute at all. It's a Cone, an Alphabet Cone."

Now these were the shelliest kids along the seashore that summer and they should all have known a Volute from a Cone, all except little Oliver. How could there be such wide differences among them?

"Helen is right about its being a Cone," August said. "But it isn't an Alphabet Cone. It's a Barthelemy Cone, a big one."

"It's a Prince Cone," Catherine said simply. But they were all wrong. It was a deadly Geography Cone, even though it was three times too big to be one. How could such sharp-eyed children not recognize such an almost legendary prize?

OLIVER kept this cone shell with him all the years of his growing up. He listened often to the distant sounding in it, as people have always listened to seashells. No cone, however, is a real ocean-roarer of a shell. They haven't the far crash; they haven't the boom. They just are not shaped for it, not like a Conch, not like a Vase Shell, not like a Scallop, not even like the common Cowries or Clam Shells or Helmet Shells. Cones make rather intermittent, sharp sounds, not really distant. They tick rather than roar.

"Other shells roar their messages from way off," Helen said once. "Cones telegraph theirs." And the clicking, ticking of Cones does sound somewhat like the chatter of a telegraph.

Some small boys have toy pandas or bears. But Oliver Murex had this big seashell for his friend and toy and security. He slept with it—he carried it with him always. He depended on it. If he was asked a question he would first hold the big cone shell to his ear and listen—then he would answer the question intelligently. But if for any reason he did not have his shell near at hand he seemed incapable of an intelligent answer on any subject.

There would sometimes be a splatter of small blotches or dusty motes on the floor or table near the shell.

"Oh, let me clean those whatever-they-ares away," mother Murex said once when she was nozzling around with the cleaner.

"No, no—leave them alone—they'll

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go back in," Oliver protested. "They just came out to get a little sunlight." And the little blotches, dust motes, fuzz, stains, whatever retreated into the shell of the big cone.

"Why, they're alive!" the mother exclaimed.

"Isn't everybody?" Oliver asked.

"It is an Alphabet Cone just as I always said it was," Helen declared. "And those little skittering things are the letters of the different alphabets that fall off the outside of the shell. The cone has to swallow them again each time, and when it has digested them they will come through to the outside again where they can be seen in their patterns."

Helen still believed this was an Alphabet Cone. It wasn't. It was a deadly Geography Cone. The little blotches that seemed to fall off it or to come out of it and run around—and that then had to be swallowed again—may have been little continents or seas coming from the Geography Cone; they may have been quite a number of different things. But if they were alphabets (well, they *were* those, among other things), then they were more highly complex alphabets than Helen suspected.

It isn't necessary that all children in a family be smart. Six smart ones out of seven isn't bad. The family could afford big-headed, queer-eyed Oliver, even if he seemed a bit retarded. He could get by most of the time. If he had his shell with him, he could get by all the time.

One year in grade school, though, they forbade him the company of his shell. And he failed every course abysmally.

"I see Oliver's problem as a lack of intelligence," his teacher told father Murex. "And lack of intelligence is usually found in the mind."

"I didn't expect it to be found in his feet," Oliver's father said. But he did get a psychologist in to go over his slow son from head to foot.

"He's a bit different from a schizo," the psychologist said when he had finished the examination. "What he has is two concentric personalities. We call them the core personality and the mantle personality—and there is a separation between them. The mantle or outer personality is dull in Oliver's case. The core personality is bright enough, but it is able to contact the outer world only by means of some separate object. I believe that the unconscious of Oliver is now located in this object and his intelligence is tied to it. That seashell there, now, is quite well balanced mentally. It's too bad that it isn't a boy. Do you have any idea what object it is that Oliver is so attached to?"

"It's that seashell there. He's had it quite a while. Should I get rid of it?"

"That's up to you. Many fathers would say yes in such case; almost as many would say no. If you get rid of the shell the boy will die. But then the problem will be solved—you'll no longer have a problem child."

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Mr. Murex sighed, and he thought about it. He had decisions to make all day long and he disliked having to make them in the evening, too.

"I guess the answer is no," he finally said. "I'll keep the seashell and I'll also keep the boy. They're both good conversation pieces. Nobody else has anything that looks like either of them."

Really they had come to look alike, Oliver and his shell, both big-headed and bug-eyed and both of them had a quiet and listening air about them.

Oliver did quite well in school after they let him have the big seashell with him in class again.

A MAN was visiting in the Murex house one evening. This man was by hobby a conchologist or student of seashells. He talked about shells. He set out some little shells that he had carried wrapped in his pocket and explained them. Then he noticed Oliver's big seashell and he almost ruptured a posterior adductor muscle.

"It's a Geography Cone!" he shrieked. "A giant one! And it's alive!"

"I think it's an Alphabet Cone," Helen said.

"I think it's a Prince Cone," Catherine said.

"No, no, it's a Geography Cone and it's alive!"

"Oh, I've suspected for a long time that it was alive," Papa Murex said.

"But don't you understand? It's a giant specimen of the deadly Geography Cone."

"Yes, I think so. Nobody else has one," father Murex said.

"What do you keep it in?" the conchologist chattered. "What do you feed it?"

"Oh, it has total freedom here, but it doesn't move around very much. We don't feed it anything at all. It belongs to my son Oliver. He puts it to his ear and listens to it often."

"Great galloping gastropods, man! It's likely to take an ear clear off the boy."

"It never has."

"But it's deadly poisonous. People have died of its sting."

"I don't believe any one of our family ever has. I'll ask my wife. Oh, no, I needn't. I'm sure none of my family has ever died of its sting. I just remembered that none of them has ever died at all."

The man with the hobby of conchology didn't visit the Murex house very much after that. He was afraid of that big seashell.

ONE day the school dentist gave a curious report of things going on in Oliver's mouth.

"Little crabs are eating the boy's teeth—little microscopic crabs," the dentist (he was a nervous man) told Mr. Murex.

"I never heard of microscopic crabs," Mr. Murex said. "Have you seen them, really, or examined them at all?"

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"Oh, no, I haven't seen them. How would I see them? But his teeth just look as if microscopic crabs had been eating them. Ah, I'm due for a vacation. I was going to leave next week."

"Are the teeth deteriorating fast?" Mr. Murex asked the dentist.

"No, that's what puzzles me," the dentist said. "They're not deteriorating. The enamel is disappearing, eaten by small crabs, I'm sure of that; but it's being replaced by something else, by some shell-like material."

"Oh, it's all right then," Mr. Murex said.

"I was going to leave on vacation next week. I'll call someone and tell them that I'm leaving right now," the dentist said.

The dentist left, and he never did return to his job or to his home. It was later heard of him that he had first abandoned dentistry and then life.

BUT little Oliver grew up, or anyhow he grew out. He seemed to be mostly head, and his dwarfish body was not much more than an appendage. He and the great seashell came to look more and more like each other by the day.

"I swear, sometimes I can't tell which of you is Oliver," Helen Murex said one day. She was more fond of Oliver and his shell than were any of their brothers or sisters. "Which of you is?" she asked.

"I am."

Oliver Geography Cone grinned.

"I am."

Oliver Murex grinned.

OLIVER MUREX was finally out of school and had taken his place in the family business. The Murex family was big in communications, the biggest in the world, really. Oliver had an office just off the office of his father. Not much was expected of him. He seemed still to be a dull boy, but very often he gave almost instant answers to questions that no one else could answer in less than a week or more. Well, it was either Oliver or his shell who gave the almost instant answers. They had come to resemble each other in voice almost as much as in appearance and the father really didn't care which of them answered—as long as the answers were quick and correct. And they were both.

"Oliver has a girl friend," Helen teased one day. "She says she's going to marry him."

"However would he get a girl friend?" brother Hector asked, puzzled.

"Yes. How is it possible?" Mr. Murex wanted to know.

"After all, we *are* very rich," Helen reminded them.

"Oh, I didn't know that the younger generation had any interest in money," Mr. Murex said.

"And, after all, she *is* Brenda Frances," Helen said.

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"Oh, yes—I've noticed that she does have an interest in money," Mr. Murex said. "Odd that such a recessive trait should crop out in a young lady of today."

Brenda Frances worked for the Murex firm.

BRENDA FRANCES wanted round-headed Oliver for the money that might attach to him, but she didn't want a lot of gaff that seemed also to attach to the young fellow. But now Oliver became really awake for the first time in his life, stimulated by Brenda Frances' apparent interest. He even waxed a little bit arty and poetic when he talked to her, mostly about his big seashell.

"Do you know that he wasn't native to the sea or shore where we found him," Oliver said. "He tells me that he comes from the very far north, from the Sea of Moyle."

"Damn that bug-eyed seashell!" Brenda Frances complained. "He almost looks alive. I don't mind being leered at by men, but I dislike being leered at by a seashell. I don't believe that there is any such thing as the Sea of Moyle. I never heard of it. There isn't any sea in the very far north except the Arctic Ocean."

"Oh, but he says that this is very very far north," Oliver said with his ear to the shell (*When you two put your heads together like that I don't know whose ear is listening to whose shell,* Helen had said once), "very, very far north—and perhaps very again. It's far, far beyond the Arctic Ocean."

"You can't get any farther north than the Arctic," Brenda Frances insisted. "It's as far north as there is any north."

"No. He says that the Sea of Moyle is much farther," Oliver repeated the whispers and tickings of the shell. "I think probably the Sea of Moyle is clear off-world."

"Oh great glabrous Glabula!" Brenda Frances swore. Things weren't going well here. There was so much nonsense about Oliver as nearly to nullify the pleasant prospect of money.

"Did you know that he has attendants?" Oliver asked. "Very small attendants."

"Like fleas?"

"Like crabs. They really are crabs, almost invisible, almost microscopic fiddler crabs. They are named Gelasimus Notarii or Annotating Crabs—I don't know why. They live in his mouth and stomach most of the time, but they come out when they're off duty. They do a lot of work for him. They do all his paper work and they are very handy. I've been practicing with them for a long time, too, but I haven't learned to employ them at all well yet."

"Oh great whelping whelks!" Brenda Frances sputtered.

"Did you know that the old Greeks shipped wine in cone shells?" Oliver asked. "They did it because cone shells are so much bigger on the inside than on the outside. They

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would put half a dozen cone shells into an amphora of wine to temper them for it. Then they would take them out and pour one, two, or three amphoras of wine into each cone shell. The cones have so many internal passages that there is no limit to their capacity. The Greeks would load ships with the wine-filled cones and ship them all over the world. By using cones, they could ship three times as much wine as otherwise in the same ship."

"Wino seashells, that's what we really need," Brenda Frances mumbled insincerely.

"I'll ask him," Oliver said. They put their two heads together, Oliver and the cone shell. "He says that cones hardly ever become winos," Oliver announced then. "He says that they can take it or leave it alone."

"After we are married you will have to stop this silly talk," Brenda Frances said. "Where do you get it anyhow?"

"From Shell. I'll tell you something else. The Greek friezes and low reliefs that some students of shells study—they are natural and not carved. And they aren't really Greek things. They're pictures of some off-world things that look kind of Greek. They're not even pictures of people. They're pictures of some kind of seaweed from the Sea of Moyle that looks like Earth people. I hope that clears up that mystery."

"Oliver, I have plans for us," Brenda Frances said firmly, "and the

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plans seem very hard to put across to you in words. I have always believed that a half-hour's intimacy is worth more than forever's talk. Come along now. We're alone except for old sea-slob there."

"I'd better ask my mother first," Oliver said. "It seems that there is some question about this intimacy bit, a question that they all believed would never arise in my case. I'd better ask her."

"Your mother is visiting her sister at Peach Beach," Brenda Frances said. "Your father is fishing at Cat Island. George and Hector and August are all off on sales trips. Mary and Catherine and Helen are all making political appearances somewhere. This is the first time they've all been out of town at once. I came to you so you wouldn't be lonesome."

"I'm never lonesome with Shell. You think the intimacy thing will be all right, then?"

"I sure do doubt it, but it's worth a try," Brenda Frances said. "For me, you're the likeliest jackpot in town. Where else would I find such a soft head with so much money attached?"

"We read a seduction scene in a book once," Oliver said. "It was kind of funny and kind of fun."

"Who's *we*?"

"Shell and myself."

"After we're married, we're sure going to change that 'we' stuff," Brenda Frances said. "But how does Shell read?"

"With his eyes like everyone else. And the annotating crabs correlate the reading for him. He says that seduction scenes are more fun where he comes from. All the seductors gather at the first high tide after the big moon is full. The fellows are on one side of the tidal basin—and then their leader whistles and they put their milt in the tidewater. And the she seashells (Earth usage—they don't call themselves that there), who are on the other side of the tidal basin, put their roe into the water. Then the she seashell leader whistles an answer and that is the seduction. It's better when both moons are still in the sky. At the Sea of Moyle they have two moons."

"Come along, Oliver," Brenda Frances said, "and you can whistle if you want to, but that seawash talk has got to stop." She took big-headed, short-legged Oliver under her arm and went with him to the chamber she had selected as the seduction room. And Shell followed along.

"How does it walk without any legs?" Brenda Frances asked.

"He doesn't walk. He just moves. I'm getting so I can move that way too."

"It's not going to get into bed with us, Oliver?"

"Yes, but he says he'll just watch the first time. You don't send him at all."

"Oh, all right. But I tell you, there's going to be some changes around here after we're married."

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She turned out the lights when she was ready. But they hadn't been in the dark for five seconds when Brenda Frances began to complain.

"Why is the bed so slimy all at once?"

"Shell likes it that way. It reminds him more of the ocean."

"Ouch! Great crawling crawdads—something is biting me! Are they bugs?"

"No, no—they're the little crabs," Oliver told her. "But Shell says that they only bite people they don't like."

"Wow, let me sweep them out of this bed."

"You can't. They're almost too little to see and they hang on. Besides, they have to be here."

"Why?"

"They're annotating crabs. They take notes."

Brenda Frances left the bed and the house in a baffled fury. "Best jackpot in town, hell!" she said. "There are other towns. Somewhere there's another half-brained patsy in a monied family—one that won't bring the whole damned ocean to bed with him."

It was later learned that Brenda Frances left town in the same fury.

"That was an even less satisfying seduction scene than in that book," Shell and his crabby minions conveyed. "We do these things so much better on the Sea of Moyle."

So Oliver preserved his virtue. After all, he was meant for other things.

AN OFF-WORLD person of another great and rich family in the communications field came to call on Mr. Murex at his home.

"We weren't expecting your arrival in quite such manner," Mr. Murex said. He had no idea of how the other had arrived—he simply was there.

"Oh, I didn't want to wait for a vehicle. They're too slow. I conveyed myself," the visitor said. They met as tycoon to tycoon. Mr. Murex was very anxious that he and his family should make a good impression on their distinguished visitor. He even thought about concealing Oliver, but that would have been a mistake.

"That is a fine specimen," the visiting person said. "Fine. He could almost be from back home."

"He is my son Oliver," said Mr. Murex, quite pleased.

"And his friend there," the visitor continued, "I swear that he is from back home."

"There's a misunderstanding," Mr. Murex said. "The other one there is a seashell."

"What is a seashell?" the visitor asked. "Are Earth seas hatched out of shells? How odd. But you are mistaken, person Murex. That *is* a specimen from back home. Do you have the papers on him?"

"I don't know of any papers. What would such papers indicate?"

"Oh, that you have given fair exchange for the specimen. We wouldn't want an interworld conflict over such a small matter, would we?"

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"If you will let me know what this 'fair exchange' is—" Mr. Murex tried to comply.

"Oh, I'll let you know at the time of my leaving," the visiting tycoon said. "We'll settle on something." This person was very much up on communications. He engaged Mr. Murex and George, Mary, Hector, Catherine, August, Helen, yes and Oliver, all in simultaneous conversations on the subject. And he made simultaneous deals so rapid-fire as to astound all of them. He controlled even more patents than did the Murex family, some of them overlapping. The two tycoons were making non-conflict territory agreements and the visitor was outshuffling the whole Murex clan by a little bit in these complex arrangements.

"Oh, just let me clean them off there!" Mrs. Murex said once where she saw a splatter of small blotches and dust motes on the table that served both for conference and dinner table—the splatter of little things was mostly about the visitor.

"No, no, leave them," that person said. "I enjoy their conversation. Really, they could almost be Notarii from my own world." Things began then to go well in these transactions even for the Murex family, just when they had seemed to be going poorly.

The visitor was handsome in an off-worldly way. He was toothless, but his boney upper and lower beak cut through everything, through the prime steak that seemed too tough to the Murex clan, through the bones, through the plates. "Glazed, baked clay, we use it too. It spices a meal," the visitor said of the plates as he munched them. "And you have designs and colors on the pieces. We do that sometimes with cookies."

"They are priceless chinaware," Mrs. Murex said in a voice that was almost a complaint.

"Yes, priceless, – delicious, exquisite," the visitor said. "Now shall we finalize the contracts and agreements?"

Several waiting stenographers came in with their machines. Brenda Frances was not among them—she had left the Murex firm and left town. The stenographers began to take down the contracts and agreements on their dactyl-tactiles.

"And I'll just save time and translation by giving the whole business in my own language to this stenographer from my own world," the visiting tycoon said.

"Ah, that isn't a stenographer there, however much it may remind you of the stenographers where you come from." Mr. Murex tried to set a matter straight again. "That is what we call a seashell."

But the visiting tycoon spoke in his own language to Shell. And Shell whistled. Then whole blotches and clouds of the almost invisible annotating crabs rushed into Shell, ready to work. The visiting tycoon spoke rapidly in off-worldly language, his beak almost touching Shell.

"Ah, the Geography Cone shell—

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that's what that thing is—is said to be absolutely deadly," Mr. Murex tried to warn the visitor.

"They only kill people they don't like," the visitor said and he went on with his business.

The annotating crabs did the paper work well. Completed contracts and agreements began to roll out of the mantle cavity of Shell. And all the business was finished in one happy glow.

"That is it," the visiting tycoon said with complete satisfaction after all the papers were mutually signed. With his beak he bit a very small ritual wedge from the cheek of his hostess, Mrs. Murex. That was a parting custom where he came from.

"And now 'fair exchange' for the specimen from back home," he said. "I always find these exchanges satisfying and fruitful."

He had a sack. And he put the short-legged, big-headed Oliver into that sack.

"Oh, that's not fair exchange," Mr. Murex protested. "I know he looks a little unusual, but that is my son Oliver."

"He's fair enough exchange," the visitor said. He didn't wait for a vehicle. They were too slow. He conveyed himself. And he and Oliver were gone.

SO ALL that the Murex family had to remind them of their vanished son and brother was that big seashell, the Geography Cone. Was it really from the world of the visitor? Who knows the true geography of the Geography Cone?

OLIVER sat on the shore of the Sea of Moyle in the far, far north. This was not in the cold, far north. It was on a warm and sunny beach in the off-world far north. And Oliver sat there as if he belonged.

There hadn't been any sudden space-change in Oliver. There had been only the slow change through all the years of his life and that was never a great alteration—a great difference hadn't been needed in him.

Oliver was bright and shining, the brightest thing on that sunny morning beach. He had his big head and his little body. He had two shiny black eyes peering out of his mantle cavity. Oliver was very much a sea shell now, a special and prized shell. (They didn't use that term there, though. Seashell? Was the Sea of Moyle hatched out of a shell?)

Six sharp-eyed children of the dominant local species were going in close skirmish right over that sunny sand and a smaller seventh child trailed them with absent mind and absent eyes. The big moon had already gone down; the little moon still hung low in the sky like a silver coin. And the sun was an overpowering gold.

The sharp-eyed children were looking for bright shore specimens and they were finding them, too. And right ahead of them was that almost legendary prize, a rare Oliver Cone. ★

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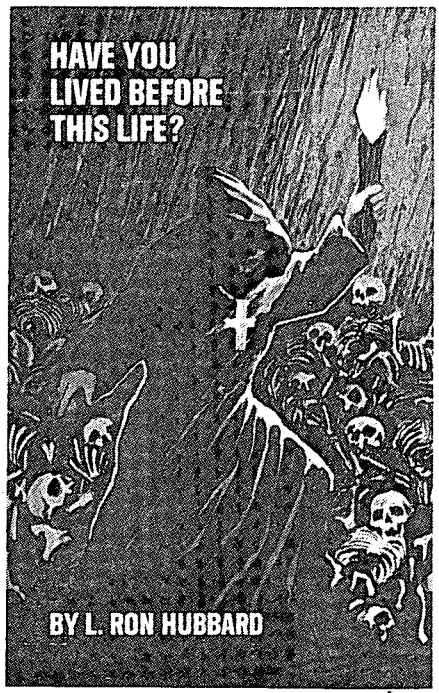

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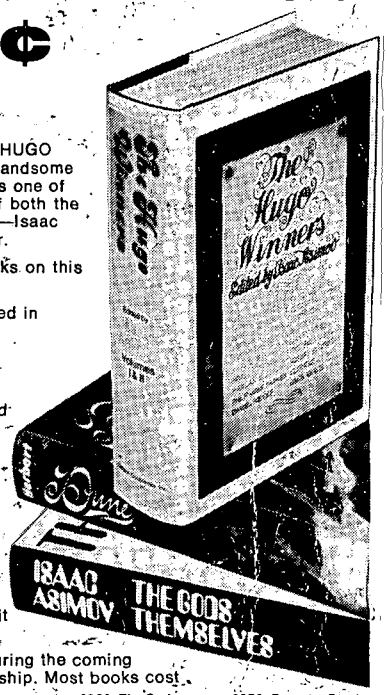

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